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THE EASTERN FARMER BLOODED DAIRYMAN AND POULTRY RAISER



Volume XV ¹⁶
Number XIII ^{no. 1}

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OF INTEREST TO YOU

BETTER METHODS OF SELLING.

We have written of it before. The most urgent need of farmers of today is to know how to sell. The work of agricultural colleges, experiment stations, the Department of Agriculture at Washington, and of the farm papers is bearing results in improved production, and this branch of the business will show tremendous development in years to come, results that few of us now do more than dream of. This is the farmers' manufacturing department.

Advertisers in agricultural journals have been for years advising us to buy, and we have not been slow to grasp the idea of co-operation in buying, for sake of closer prices, better terms, and more prompt and courteous treatment. Our farm trade has become worth while.

The complimentary point is to know how to sell, and for this we cannot do better than to look to the so called trusts. Modern conditions have developed these combinations. This is an age of big things, of concentration for tremendous results economically, and while "trusts" need regulation, just as our neighbor does who offsets our efforts to curb the spread of weeds, by letting his land run to the production of "tares," or the fellow on the other side of the road who grows fruit trees for no other apparent reason than as a breeding ground for scale and other fruit pests, but they cannot be crushed out because they are a necessary part of civilization of today, an improvement over former conditions, and a developing step toward higher and better things.

We would, then do well to look to these "trusts" as models of organized selling force, and the lesson they teach us first is to sell where the consuming demand is, and not simply to one local individual who happens to know some other individual who will buy from him, and on, and on, in the same chain

until your product, too frequently sold by you at an absurdly low price, reaches the consumer with so many middlemen's commissions added that the price is almost prohibitive, so much so at any rate as to cut consumption to a minimum, and to bring down upon our heads the odium of high cost of modern living.

Farmers must get into more direct selling contact with the consumer, and this is the part of our business that must now be worked out. Experiments along these lines have been made here and there, notably by the Gleaners, in Michigan, but the efforts have been spasmodic, frequently not well planned, and more often badly managed.

This is a matter that should occupy more of our attention than it does, and it is a field that should be sufficiently inviting to attract some of the never-tiring organizing geniuses who understand such affairs, men who could at least teach us the basic principles upon which such an idea must be worked out. It will come, is bound to come. Farming is about the only line of manufacturing in which the producer gets none of the benefit from better methods of selling.

Who will show us the way?

IT PAYS TO ATTEND AGRICULTURAL MEETINGS.

Here Is a Case in Point.

It's part of a man's education and equipment to know what competitors are doing, and the farmer who makes time to attend the agricultural meetings within reach during the fall and winter will not only be a better farmer himself, but will frequently have an opportunity to help others less experienced and "rounded out" than he is.

"There is a class of farmers who never attend agricultural meetings, and will say of the neighbors who go that they might better be at home at work. There may be exceptions, but

nine times out of ten, the man who cultivates the wider range of acquaintance and knowledge is the one who will win, other conditions being equal. For instance, when I attended a farmers' meeting a short time ago, one man asked how much cottonseed meal it was safe to feed a dairy cow. The reply was that five or six pounds might be fed for short periods, but three or four pounds for long periods would be sufficient. He said he had been feeding eight pounds a day to every cow this year, and the cows were giving lots of milk. He did not know cottonseed meal fed in too large quantities will injure dairy animals."

That one point picked up at the meeting ought to more than pay for his trouble in going.—G. S. C., Massachusetts.

PRESIDENT TAFT ISSUES HIS CENSUS PROCLAMATION.

"Now, therefore, I, William Howard Taft, President of the United States of America, do hereby declare and make known that under the act aforesaid it is the duty of every person to answer all questions on the census schedules applying to him and the family to which he belongs, and to the farm occupied by him or his family, and that any adult refusing to do so is subject to penalty.

The sole purpose of the census is to secure general statistical information regarding the population and resources of the country, and replies are required from individuals only in order to permit the compilation of such general statistics. The census has nothing to do with taxation, with army or jury service, with the compulsion of school attendance, with the regulation of immigration or with the enforcement of any national, state or local law or ordinance, nor can any person be harmed in any way by furnishing the information required. There need be no fear that any disclosure will be made regarding any

BLOODED STOCK for March.

individual person or his affairs. For the due protection of the rights and interests of persons furnishing information every employee of the Census Bureau is prohibited under heavy penalty from disclosing any information which may thus come to his knowledge.

I therefore earnestly urge upon all persons to answer promptly, completely and accurately all inquiries addressed to them by the enumerators or other employees of the Census Bureau, and thereby to contribute their share toward making this great and necessary public undertaking a success."

ONE BRANCH OF FARMING, AT LEAST, NOT PAYING.

While every sort of reason to account for the high cost of living is being "dug up," and the farmer equally with the "trusts" is being roasted unmercifully as the author of 25 cent pork loins, 40 cent butter, high rents, "two fares to Coney Island," etc., it's just a little satisfaction to point out a case where prices to farmers are so low that they positively cannot meet the expense of producing the crop.

We refer to tobacco growing in New York state.

"At a meeting of the New York State Tobacco Growers' Association, at the town hall at Baldwinsville, tomorrow, reports will be submitted showing an unsatisfactory condition in the tobacco trade in central New York. Because of low prices one year ago many farmers reduced their tobacco acreage, and indications are that there will be a still greater cut this year. The outlook is anything but encouraging. Because of existing conditions and the outlook for the future, Secretary Burt Giddings, of the State Association, says to-morrow's convention may not be a very enthusiastic one.

"The subject will be taken up," said Mr. Giddings, "but I do not see that there is much that can be done. When the dealer will pay only 7, 8 and 9 cents a pound for good tobacco there is not much use trying to keep up interest in this end of agriculture. Prices have been low for three years and it is hard to explain why. Some blame the American Tobacco Company. I do not know that this company is responsible for Onondago tobacco selling at the present prices. Only two warehouses are being operated at Baldwinsville this winter."

For several years George H. Harris, a representative of the United States Department of Agriculture, has been stationed at Baldwinsville in the interest of the tobacco growing farmers. His work has been confined to soil analysis, fertilizers and varieties of leaves. He seeks to help the farmers in locating their tobacco crops with a view to getting the best results, selecting soil adapted to the raising of tobacco and the kind of fertilizer necessary. The quality of the crop and the growth have shown material improvement since his arrival. The lower prices, however, have more than offset all that he has been able to accomplish.

With better prices it is said the industry in central New York would rival the tobacco belt in Connecticut in a short time.

CANADA NOT MAKING TARIFF CONCESSIONS TO U. S.

It remains with the President to decide, under the terms of the Payne-Aldrich tariff law, whether Canada is discriminating unduly against this country. In the public mind at least the responsibility for any tariff war that may result will fall on the President's shoulders.

The President's friends are keenly alive to the possibilities of political embarrassment in a tariff war with Canada. One prominent Republican supporter of the Administration says that unless this tariff war is averted most of the border States will return Democratic delegations to the Sixty-third Congress.

The chances for a satisfactory settlement of the differences are becoming more remote, and a final adjustment seems almost hopeless now.

The President and his advisers are very much averse to taking any action that will lead to tariff reprisals between the two countries, but they are firm in their determination to demand for the United States the same favors that Canada granted to France in the matter of her tariff schedule.

Under treaties made by Great Britain before the Canadian agreement was drawn the terms of all trade agreements made by that colony were to be extended automatically to all nations with which Great Britain made "favored nation" agreements.

The President was informed that there are twelve countries in addition to France that benefit under the "favored nation" clause and pay duties from 2½ to 5 per cent. lower than those paid on American exports.

So far, it was said to-night, Canada has made no concession to the United States. She has stood pat in spite of the fact that unless action is taken by March 31 the President must act. Under the tariff law he must decide that Canadian imports are subject only to the minimum duties or that they must pay the 25 per cent. ad valorem in addition to the regular duties.

Future conferences will be needed before the President can reach a judicial determination as to whether Canada is discriminating unduly against this country.

Tariff with France.

In regard to France the Administration is more hopeful. While no agreement has been reached with that country it is believed that efforts will be made within a few days which will make an understanding possible.

A NOTABLE GATHERING OF CHURCHMEN.

A "clerical conference" was held a few days ago, in New York, to promote the formation of a united Protestantism in New York, and eventually in America. The meeting was held upon invitation of the Federation of Churches. More than one hundred clergymen were present, representing Baptists, Congregationalists, Disciples, Seventh Day Adventists, Methodists, Moravians, Presbyterians, Pentecostal Nazarenes, Reformed, Swedenborgians, Unitarians, Universalists and Episcopalians.

"We hear at times," said Bishop Greer, of the Episcopal Church, "that

the churches are failing. It is not true. Mr. Moody used to declare that London is the greatest Christian city in the world. If that be so, New York is certainly the second. The churches are well filled, some of them crowded, and the proportion of men attending them is greater than ever. We must start this conference with a note of optimism, and happily there are plenty of facts on which to base our hopes. Men and women are giving of their time and their money to missions at home and missions abroad as they did not do in the good, old days so-called.

"We are well aware of the sin prevalent in our midst. But it has always been prevalent. Half a century ago it was here, no worse now according to the size of the city than then. The gain is that the churches know that it exists and are doing something to stamp it out. In times past the churches did not seem to know there was sin. And when sin comes to the point of being inveighed and seriously opposed, it is half rooted out."

Speaking for Presbyterians, the Rev. Dr. George Alexander, Moderator of the New York Presbytery, said that they stand ready to meet Episcopalians half way.

The Rev. Dr. Nehemiah Boynton, of Brooklyn, speaking for Congregationalists, enumerated the political, social, amusement, Sabbath rest, labor and other questions on which Protestants might unite.

Other speakers included the Rev. Dr. J. B. Remensnyder, who spoke for Lutherans; the Rev. Dr. Frank Mason North, who believed the Methodists would join; the Rev. Dr. Swift of the American Tract Society, who wondered how many religious bodies are willing to sacrifice their names in order that the cause of Christ might be advanced, and the Rev. J. H. Melish, of Brooklyn, who made the announcement that the conference is to be permanent, and is to meet next on April 11, with the Rev. Dr. C. F. Aked, Baptist, in the chair.

In closing Bishop Greer said that the next matter in hand is to hear from representatives of each body in the conference what are their hindrances to cooperation. "If the Protestants were to unite," said he, "their very union without other effort on their part would do more to banish agnosticism than all the arguments that were ever put into all of the books. It would be an evidential note in behalf of righteousness such as the world has not yet heard."

The Bishop said that the Episcopal Church stands ready.

This is the first meeting of the kind to be held in America. It's a tremendous step in the right direction, but let it broaden out to take in the great Church of Rome, and a United Christendom would quickly win the world for Christ.

MANITOBA BUYING GRAIN ELEVATORS.

The government of the Province of Manitoba has just voted \$2,000,000 to be used as a beginning in buying up the grain elevators of the Province. It would seem like a pretty big proposition in a country where the elevators are almost a continuous line along the railroads.

How Missy of the Glen Beat out Dolly Dimple

Her Year's Record 14,501.7 lbs. Milk, 954.76 lbs. Butter Fat, 1,100 lbs. Butter

Missy's "portrait" has already appeared in these columns, together with a sketch of her breeding and home at Glen Farm, Newport, R. I., belonging to Mr. H. A. C. Taylor. But in the February number we published the daily "menu" served to Dolly Dimple, and promised that in March we would tell you just how Missy was fed to surpass her rival as a butter maker.

The test was conducted throughout by the Rhode Island Agricultural Experiment Station, and two different inspectors were in charge.

She was dropped on April 26, 1904, and was, therefore, five months short of five years old when her test was begun, December 1st, 1909.

In order that there might be no possibility of error in testing, those in charge of inspection work in New Hampshire and Massachusetts, went to the Rhode Island Station and checked over what the local men had done and it tallied correctly.

Nineteen months after calving, in the presence of Mr. L. F. Herrick, of Worcester, Mass., test showed 9.3 per cent. butter fat, with a milk yield of 31.6 lbs. per day.

She was served on May 25, 1909. Until the second month of her test she had been milked but twice daily, but at that time, showing evidence of a record yield, a special course of feeding was planned and she was milked three times each day.

Plenty of out-door life, in all kinds of weather, was the rule, and only once, towards the last of November, did she falter for a couple of days, when she was troubled with sore feet. From this she quickly recovered and at the close of the year's test was apparently in her best condition.

	lbs.	per cent.	lbs.
Dec., 1908	1150.90	4.68	53.86
Jan., 1909	1106.40	5.11	61.14
Feb.,	1089.20	6.17	67.20
Mar.,	1164.10	5.24	61.00
Apr.,	1177.50	6.90	81.25
May,	1331.40	5.75	76.56
June,	1326.60	6.30	83.58
July,	1372.70	7.15	98.15
Aug.,	1371.70	6.50	89.16
Sept.,	1226.70	7.21	88.45
Oct.,	1151.20	9.07	104.41
Nov.,	1033.30	8.71	90.00
Total,	14591.70	6.54	954.76
		Av.	

What She Was Fed.

December 1st to 10th, 90 lbs. grain of following mixture: 105 lbs. bran, 100 lbs. corn meal, 20 lbs. Daisy Dairy Feed, 25 lbs. oats, 15 lbs. oil meal; 10th to 31st, 378 lbs. grain of the following mixture: 136 lbs. bran, 136 lbs. corn meal, 15 lbs. Daisy Dairy Feed, 100 lbs. oats, 50 lbs. oil meal, 60 lbs. Ajax Flakes, 50 lbs. Alfalfa meal, 40 lbs. molassine meal, 100 lbs. gluten, 400 lbs. beet pulp.

January, 568 lbs. grain of the following mixture: 225 lbs. bran, 205 lbs. corn meal, 120 lbs. Daisy Dairy Feed, 175 lbs. oats, 86 lbs. oil meal, 80 lbs. Ajax Flakes, 126 lbs. Alfalfa meal, 15 lbs. Molassine meal, 36 lbs. gluten, 232 lbs. beet pulp.

February, 504 lbs. grain of the following mixture: 130 lbs. bran, 215 lbs. corn meal, 170 lbs. Daisy Dairy Feed,

120 lbs. oats, 110 lbs. oil meal, 80 lbs. Ajax Flakes, 215 lbs. Alfalfa meal, 162 lbs. gluten, 215 lbs. beet pulp; 280 lbs. ensilage, clover hay and mangels.

March, 558 lbs. grain of the following mixture: 200 lbs. bran, 150 lbs. oats, 220 lbs. Daisy Dairy Feed, 200 lbs. gluten, 300 lbs. Alfalfa meal, 200 lbs. oil meal, 50 lbs. cottonseed meal, 300 lbs. beet pulp.

April 1st to 20th, 320 lbs. grain of the following mixture: 250 lbs. bran, 150 lbs. oats, 250 lbs. Daisy Dairy Feed, 300 lbs. corn meal, 150 lbs. gluten, 150 lbs. Alfalfa meal, 150 lbs. oil meal, 30 lbs. cottonseed meal, 150 lbs. Ajax Flakes, 250 lbs. beet pulp; 20th to 30th, 150 lbs. of same mixture, mangels, clover hay and pasture.

May, 186 lbs. grain of the following mixture: 50 lbs. bran, 216 lbs. corn meal, 110 lbs. oats, 108 lbs. oil meal, 105 lbs. Alfalfa meal, 150 lbs. Daisy Dairy Feed, 25 lbs. gluten, 20 lbs. cottonseed meal, 108 lbs. beet pulp, hay, and grass.

June, 348 lbs. grain of the following mixture: 135 lbs. bran, 270 lbs. corn meal, 155 lbs. oats, 105 lbs. oil meal, 100 lbs. Alfalfa meal, 85 lbs. gluten, 30

lbs. cottonseed meal, 270 lbs. Daisy Dairy Feed, 20 lbs. Ajax Flakes, 100 lbs. beet pulp.

July, 511.5 lbs. grain of the following mixture: 115 lbs. bran, 230 lbs. corn meal, 110 lbs. oats, 115 lbs. oil meal, 58 lbs. gluten, 120 lbs. Alfalfa meal, 10 lbs. cottonseed meal, 203 lbs. Daisy Dairy Feed, 14 lbs. beet pulp; and pasture.

August, 496 lbs. grain of the following mixture: 140 lbs. bran, 300 lbs. corn meal, 95 lbs. oats, 145 lbs. Alfalfa meal, 280 lbs. Daisy Dairy Feed, 99 lbs. oil meal, 35 lbs. gluten, 12 lbs. cottonseed meal, 23 lbs. Molassine meal, 42 lbs. beet pulp.

September, 511.5 lbs. grain of the following mixture: 70 lbs. bran, 65 lbs. oats, 150 lbs. corn meal, 70 lbs. Alfalfa meal, 110 lbs. Daisy Dairy Feed, 10 lbs. oil meal, 30 lbs. gluten, 13 lbs. cottonseed meal, 20 lbs. Molassine meal, 35 lbs. beet pulp; corn fodder, and pasture.

October, 511.5 lbs. grain of the following mixture: 60 lbs. bran, 65 lbs. corn meal, 58 lbs. oats, 60 lbs. Alfalfa meal, 115 lbs. Daisy Dairy Feed, 20 lbs. oil meal, 31 lbs. gluten, 10 lbs.

BLOODED STOCK for March.

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Page Five.

The Dairyman who Buys any other Cream Separator always hopes it will be as good as the

UNITED STATES.

It's economy to begin where you are sure to finish—with the.....

UNITED STATES.

Examine the 1910 Interlocking Style.

Selling agents located in nearly every town will take pleasure in giving a free trial to anyone interested. If you do not know agent, write us for Cat. No. 26.

VERMONT FARM MACHINE CO.,

Doing business since 1873.

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favorable influence on the flow of milk.

In this connection we would emphasize the need of stripping the cows out clean, because the fat globules secreted in the cells of the upper part of the udder are retarded in their course downward toward the outlet at the bottom of the teat, by the walls of the tiny ducts through which they flow in their course towards the milk pail. Unless time be taken to extract this part of the milk known as "stripings," the milk will test much lower than usual in fat, and make less cream and butter.

It is scarcely necessary to say that the milker should be clean, wear clean clothing and especially have clean hands when commencing to milk and during the milking operation. A loose linen or cotton coat which comes below the knees is a convenient garment to wear at milking time, and one which is easily washed. So far as results are concerned we favor women to do the milking as they are naturally cleaner than men, and have more of the sympathetic touch which counts for so much in the milk flow. There must always be a bond of sympathy between the cow and the milker in order to obtain a maximum yield of milk. In practice, men should do the milking, because many cows and stables are unfit for a woman to do the work.

While it is no doubt true that small-topped milk pails keep dirt out of the milk, our judgment is that it is cheaper and safer to clean the cow before commencing to milk, and there will be less danger of badly-washed milk pails where the ordinary open pail is used. The "small top" pail is also a difficult pail to milk into—in fact some cows, with spreading teats, cannot be milked, except one teat at a time, into such pails.

A well washed, scalded, aired and sunned pail of the open, wide top variety we believe to be the most practicable pail for average milkers.

We have not yet seen an altogether satisfactory milking stool. Such a stool should be strong, easily cleaned, light, of proper height and size, and be kept clean. Many stools contaminate the hands of the milker owing to their dirty condition. On the whole, we are inclined to favor a simple stool, and that the milker shall hold the pail between the knees. Those

cottonseed meal, 15 lbs. Molassine meal, 60 lbs. beet pulp; corn fodder and beets, and pasture.

November 1st to 20th, 160 lbs. grain of the following mixture: 60 lbs. bran, 55 lbs. oats, 55 lbs. corn meal, 50 lbs. Alfalfa meal, 50 lbs. Daisy Dairy Feed, 40 lbs. beet pulp, 10 lbs. oil meal, 10 lbs. gluten, 10 lbs. Molassine meal, 4 lbs. cottonseed meal; 20th to 30th, 160 lbs. grain of the following mixture: 15 lbs. bran, 20 lbs. oats, 50 lbs. corn meal, 40 lbs. Alfalfa meal, 35 lbs. Daisy Dairy Feed, 40 lbs. beet pulp, 15 lbs. oil meal, 15 lbs. gluten, 20 lbs. Molassine meal, 13 lbs. cottonseed meal; clover, hay and pasture.

Mr. Barclay and Mr. Griffith are to be congratulated on the wonderful success of their year's work with a no less marvelous animal.

ABOUT MILKING.

To be a good milker, an intelligent milker, it is necessary to know something of the nature of milk secretion.

Milk is the product resulting from the action of nervous force upon the cells and other organic matter in that part of the cow's body known as the udder, but commonly spoken of as "bag."

There are two theories which have been put forward to explain the secretion of milk by the cow. The one is known as the metamorphosis or change theory, by which it is assumed that milk consists of the metamorphosed or changed cells of the udder. In other words, that which we know as milk, is simply the broken down cells which largely make up the inside material of the udder. The objection to this theory as a complete explanation of milk secretion is, that a cow would be required to build up the cells of the udder several times daily, when producing a large flow of milk, which is practically impossible for her to accomplish.

The second theory is known as the transudation or filter theory, which assumes that milk is filtered from the blood as it passes through the udder on its way back to the heart and lungs for purification. In this case we have the heart always as the chief source of material for milk production, and there are many things to be said in favor of the theory. The objections are, that neither casein nor milk sugar, found in milk, are constituents of blood, but are probably the result of cell action. The composition of the ash material in milk and blood have their proportions of soda and potash reversed, which is difficult to explain by the filter theory.

Recently there has been put forward another theory to explain milk secretion, known as the ferment, but this has not as yet been very widely accepted. It assumes that milk is the result of the action of ferments in the cow's udder.

If we combine the metamorphic and transudation theories we have a fairly satisfactory working hypothesis to explain the mystery of secreting milk. The fat, casein, milk-sugar and part of the ash material in milk, are doubtless the result of cell activities, while the water, albumen and part of the ash of mineral matter are filtered from the blood. We thus see that the most valuable milk constituents are the result of cell action, hence the importance of having the cow in a vigorous condition at the time of milking, so that the vital forces may exert a

stools having a rest for the pail are too cumbersome and too easily broken. In sanitary dairies the stools are sterilized daily.

The habit of setting the pails on the stable floor behind the cows with milk in them is not satisfactory. There ought to be a ledge or shelf on or in the side wall behind the cows, or a swing self in the centre where cows stand tails together, for holding empty pails and pails of milk.

With a kind word to the cow, approach her gently from the right side, place the stool on a firm, clean place, sit down gently and quietly, wipe the udder and flanks with a clean, damp-cloth, place the pail in position and commence milking as if it were the most natural thing in the world for both cow and you. All false moves, unnecessary noise or disturbance, all fuss, tends to disturb the cow and lessen the milk flow.

Milk with dry hands as far as possible. A person can milk more cows and milk them more quickly by changing from hand to thumb and finger stripping, but this means that the teats must be lubricated with oil, vaseline, or milk. Vaseline is to be preferred. The practice of dipping the finger in the milk is very objectionable, and we are strongly opposed to anything but dry milking.

The cow should be milked as quickly as possible as it is her nature to yield her milk quickly to a hungry calf, and the person who is milking a cow becomes her calf for the time being.

Milk not removed from the udder acts as an irritant and causes the cow to "dry up," hence another reason for stripping the cow clean.

The milk should be weighed and tested at regular intervals in order to know whether or not the cow is making profit.

In the foregoing we have not said anything about milking machines. We believe that these machines are being perfected and that eventually they will be practicable and economical for herds of twenty-five or more cows—possibly for smaller herds where hand labor is scarce.

Because the days are longer and sun warmer don't get an idea that summer has come, and that animals may be left to shift for themselves. Give them plenty of out-door exercise, but winter hasn't left us as yet.

Cheap twine is not good economy

WE want every farmer in this country who uses our twines to go through the entire harvest season without one break in the field. We have set out to make that the standard test of all twines, and we believe that I H C twine comes nearer being such a grade than any other twine.

We have taken this matter the more seriously because we have stood back of the Sisal and Standard Sisal twines and the better grades of Manila ever since

85 to 90 per cent of all the twine used is Sisal. It comes in a larger strand than the Manila twine; and, as all binders are adjusted to use this twine, the result has been that the bigger, stronger twine has proved more satisfactory in actual mechanical binding. Its only equal is the higher grade, higher priced Manila, which also bears the I H C trade-mark.

These two twines represent the highest point of excellence thus far attained in binder twine. You get the best when you ask your dealer for an

I H C Brand of Sisal—Standard Sisal—Manila or Pure Manila

You get a twine that has made its record in millions of wheat fields. One that is guaranteed of standard length and standard strength.

One that is smooth-running; that works at a steady tension, without kinking or tangling in the twine box, and consequently without any loss.

One that has the smallest percentage of breaks and that works well in binder knotter. Good binder twine is as important to you during harvest as good weather. You cannot regulate the weather, but you can pick your twine. If you want to be positive that you will have no twine delays, choose your twine—Sisal 500-ft.; Standard (which is made from pure Sisal) 500-ft.; Manila 600-ft., or Pure Manila 650-ft., from any of the following I H C brands:

Champion Deering McCormick
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These brands mean time-insurance for you during harvest. Let your local agent know well in advance what your needs will be. The mills are working now. And if you want more interesting facts on binder twine, write us for particulars.

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(Incorporated)



TO MAKE THE BABCOCK TEST.

I recently bought a Babcock test outfit to test my cow's milk, and see which ones were paying me, but I have not had very good success with the tests. Will you please explain to me how to use the test?—Dairy Farmer.

Before sampling the milk care should be taken to see that it is thoroughly mixed. Take 17.6 c. c. of the milk, with the pipette, and place it in test bottle. Add the same amount of commercial sulphuric acid and mix with a rotary motion. When thoroughly mixed the color should be clear chocolate brown. If the color is too light add a little more acid, for the acid used was too weak. A strong acid will give a black color, the fat will be charred and the reading imperfect. Be sure and have acid and milk cool. In testing the cows the total weight of milk is necessary before the amount of butterfat given can be ascertained.

A CANADIAN COMPLIMENT FOR AMERICAN DAIRY FARMERS.

At the annual convention of the dairymen of Ontario, held at Belleville, a few weeks ago, Dr. C. A. Publow paid a compliment to the dairy farmers of the State of New York, which is well deserved.

"In caring for milk the first requisite is to keep out the dirt, and in that respect New York State is away ahead of Ontario. The cleanliness of milk is the first thing aimed at by the American farmer. He uses small mouthed milking pails and does all he can to keep out the dirt. This is the secret of his success. We need more co-operation and more care along dairy lines on our Ontario farms."

PROFESSOR BERNHARD BOEGGILD, OF THE ROYAL DANISH AGRICULTURAL COLLEGE.

Will visit America in May, and remain almost the entire summer, lecturing on dairy matters, at the various strong Scandinavian settlements throughout the middle West and Northwest.

The professor will also lecture in English at the various universities and agricultural colleges, and deliver a few popular lectures in large cities. Prof. Boeggild is counsellor to the



The GUERNSEY COW

Her Dairy Products have Scored the Highest Quality and Best Color Full information of this fine breed of GUERNSEY CLUB, Box Y, Peterboro, N.H.

Danish government in all matters pertaining to Dairy questions, and throughout Europe is considered an authority on the subject. He has attended all International Agricultural and Dairy Congresses of late years in Europe as a representative of his government, and has for several years studied the Dairy question in England, Germany and France. He is author of several volumes on Dairying, and a prolific contributor to European Dairy papers. He is also considered an authority on bacteriology.

The lectures will be: The Production of Milk; Various conditions affecting the Fat content of Milk; The Danish Cow Test Associations; Feeding of the Cows, Summer and Winter; Pasteurization of Milk; Danish Co-operative Creameries; Denmark's Butter Export; Dairying in Denmark, formerly and now; Milk as a Food; The Milk Supply of Copenhagen; Denmark's Dairy Laws; Hygiene Requirements and Milk Prices; Agricultural Instruction in Denmark.

The professor's tour is under the auspices of the Danish-American Association, and any additional information can be had by writing to 3050 W. North Avenue, Chicago, Ill.

OLEOMARGARINE CASES IN PENNSYLVANIA.

Mr. James Foust, Dairy and Food Commissioner of the State of Pennsylvania, has asked the publishers of the state to run the following report of the work of his Department:

Mr. Foust writes: "During the three years of my administration 497 Oleomargarine cases have been terminated as compared with 435 cases terminated during the six years of former Commissioners, and \$45,366.29 in fines and costs have been paid into the State Treasury, as compared with \$28,961.09 paid in during the six years of my predecessors."

Year.	Cases	Fines.
1901	16	\$1,160.00
1902	117	4,113.59
	133	\$5,273.59
1903	35	\$2,468.55
1904	48	1,115.10
1905	101	8,360.41
1906	118	11,743.44
	302	\$23,687.50
1907	157	\$14,827.88
1908	67	7,139.05
1909	273	23,399.35
	497	\$45,366.28

These figures, taken from the records of this office, clearly prove that the Oleomargarine Law, during my administration, has been more vigorously enforced than at any time in the history of the Department.

This statement is issued for the reason that there has been some criticism of the Dairy and Food Bureau as to the enforcement of the Oleomargarine Law, and in order that the facts may be fully and correctly laid before the people for their information."

The years 1907 to 1906 were under former commissioners. 1907-8-9 under Mr. Foust. It must be remembered, however, that the Act under which these prosecutions are possible is dated May 29th, 1907.

BLOODED STOCK for March.

INTERSTATE DISEASED MEAT.

A Supply Company Convicted Under Federal Law.

The Hoboken, New Jersey, Butchers' Supply Company was convicted by a jury in the United States District Court a few days ago of wilfully offering for sale diseased meat which had come under the interstate commerce regulations. Judge Cross deferred sentence, which will consist of a fine.

In December last Robert L. Mullings, an inspector of the Department of Agriculture, one day followed a wagon of the defendant company through Hoboken, across the ferry into New York. Later the carcasses of six calves which had been in the wagon were seized. Government witnesses testified that they were immature, undeveloped, devoid of fat and unfit for food.

POULTRY.

FOR SALE—Good honest stock eggs of Single Comb Brown Leghorns; finest strains, Cuffs and Blue Ribbon winners at Cumberland, Frostburg and Somerset. 600 fine large farm-raised birds for sale at reasonable prices. Twenty-five extra choice Light Brahma cockerels for sale. Write me. HERMAN SHOCKEY, Sand Patch, Pa.

MISCELLANEOUS.

HORSES going blind Barry Co., Iowa City, Ia., can cure.

FOR SALE—Two litters Scotch Collie puppies, sired by the noted "Flying Comet" and "Laddie Boy," out of bitches bred in the purple; perfectly marked golden sable; strong, healthy, farm-raised stock. Prices from \$10 up. FRANK H. TAYLOR, Reedsville, Pa.

MILCH GOATS.

MILCH GOATS—Information regarding this most profitable milk producing animal. Write G. H. Wickersham, 1242 St. Francis avenue, Wichita, Kansas.

SEND 10c for a sample copy of the largest, newest, race-horse paper published. P. J. WYAND, Cumberland, Md.

TROTTER MARE for sale—a handsome, black, trotting mare, and beautiful stud colt, very fast. Second cousin to Dan Patch. Price \$200. P. J. WYAND, Cumberland, Md.

FOR SALE—Pure-bred Registered Holstein Bull. Ready for service this spring. Born April 6, 1909. Two-thirds white. Finely marked. Fine individual. Write for pedigree and price. MADISON COOPER, 161 Court, Watertown, N. Y.

KENDALLS SPAVIN CURE

NEVER KNOWN TO FAIL
Knoesenek Hill, R. L., May 4th, 1909.
Gentlemen: I keep a number of horses and have used your Spavin Cure for the last eight years. I have never known it to fail in whatever way used. T. W. Babcock.
For Spavin, Ringbone, Curb, Splint, Sprains, Swollen Joints, All Lamenesses.
Proved by 40 years of use by hundreds of thousands, the best that the medical world affords. The standby for family use also. \$1 a bottle, 6 for \$5. Buy at drug stores and get free book, "A Treatise on the Horse," or write to—
DR. B. J. KENDALL CO.
Enosburg Falls, Vt.

BLOODED STOCK for March.

HORSE ACTION

To "size up" an animal as to size and conformation requires merely a glance by almost anyone familiar with horses. You do not have to study him very long to pick out his shortcomings and his particularly good points. Straight shoulders, long backs, shortness of ribs, are points readily seen, and cannot well be hid by most careful fitting by a man who knows horseflesh and keeps his eyes open. It requires no particular judgment to find bog spavin, curb or roundness of bone.

But there are other important points that must be considered, so that it takes a man a long time to become a really good judge of a horse, many never do.

The hard part to judge is the symmetry of the horse's action, and the purpose of this article is to give information on this most important attribute of the animal.

Good action is the result of good conformation in places where the eye cannot trace the defects. It is the result of perfect co-ordination between muscles and tendons, with the bones and their joints.

The working apparatus of the horse is a combination of muscles and bones. It is the harmonious co-ordination of both that makes him able to perform labor. The powerful contractions of the muscles cause the joints of the bones to articulate, and the limbs to move accordingly. Almost everyone knows this, and knows too, that there is considerable difference in the manner in which each horse does this, and has some opinion as to the accuracy of his own particular judgment of the "action" of a horse. Probably not all, however, have stopped to think just what the real significance of these variations in action might be, just what they mean in the way of assisting or of impeding the horse's capacity for labor, or how the whole thing worked out, in a way to give good or bad results.

The action part of the horse is a machine. It is not built, as most machines of hand manufacture now are, upon the interchangeable plan, where every part is designed by an expert, to answer its purpose in the best way, and where all are the same. Each one has its own peculiarities, and these appear in all kinds of combinations in every different horse. The result of these various combinations are to be observed in wide variations of action, almost in every limb which horses own, and their capacity for efficient labor is affected accordingly.

When the bones of a horse are formed and set just right, when joints are so true as to move easily, bringing each portion of the limb backward and forward in just the right way, and when the muscles are strung over them so that each pull will be straight and true over the joint, then the horse will exhibit a style of action that is smooth and easy, his limbs will move backward and forward in straight lines, and his gait will be effortless and easy to himself. Such a horse will be capable of doing a great deal of work with little comparative expenditure of energy. This is so because he has a perfection of conformation

that is not visible to the eye when the horse is at rest.

Between the equilibrium of bodily proportion, and this integrity of conformation which is evidenced by good action, there seems to be little relationship. Some horses of fine proportions have exhibited very inferior action, while others manifestly faulty in more visible outlines, exhibit action that makes of them capable and efficient work horses, trotters and racers. Not only is this true, but often horses that are physically deficient, light of heart girth, flat and short of rib, have been able to prove themselves good workers, and to outlast more sturdily built mates, because they "did the work with such ease to themselves."

Speaking almost unreservedly, it is the rule in regard to a horse's action, that the higher up, closer to the body that defects may be located, the more do they interfere with the actual power and capacity of the animal, while those whose evidences are manifested more in the lower extremities of the limbs are indicative of abbreviated wearing qualities.

In this country badly placed, ill-shaped shoulders do not receive the condemnation which they rightly deserve on account of their stilted effect upon the free movement of the fore limbs. This is not the case across the sea, and ill-placed shoulders are the abomination of the English horseman. Generally speaking, the wedge-shaped shoulder is the conformation to be desired, the more wedge-like the better, allowing a free play at the elbow, while at the same time supporting the bodily weight at the top closer in line with the centre, affording less tendency to roll while in action. The sloping shoulder gives broader surface of attachment, as it is longer than the short, upright one.

There is far more in this kind of conformation which is visible only through the action of the horse than many suppose, although the experienced horseman is always on the watch for it, and it goes a long way in determining the price which he will pay for any class of horse. Just why this is so cannot be readily explained, but a great deal of the difference between the horse whose action is easy, true, and correct, and that which is stiff, awkward or devious can be explained from a purely mechanical standpoint.

In correct action of the fore feet, the foot is brought up to a moderate height, carried straight forward until

it reaches that point where it can be placed upon the ground without stubbing into or scraping along the ground, or, on the other hand, appearing to reach too far, or to "dwell" in a reaching position. As it reaches the ground, there should be no heavy impact, and such as there is should be taken up by the springiness of the pastern, the step resulting in no vibration of body, and no appearance of a tendency to "roll" as one foot after the other is alternately carried forward. The elbows should be seen to play wide of the chest, causing no impact, the knees should be carried in the pleasing, straight, direct way, which once seen, and carefully pointed out, is not soon forgotten. The straight, direct play of the elbow is of greatest importance. To be just right, it should be a happy combination of tightness and freedom, playing easily in response to the great muscles which control it, yet displaying firmness and precision in articulations of no doubtful character.

Usually the character of action of the elbow can be accurately gauged by the set and proportions of the shoulder, elbow and forearm, and old-country Scotchmen are about as fastidious regarding the "way the forelegs are set into the shoulder" as they are about ankles and hoof-heads. In action, for the shoulder to protrude is a fault indicative of weakness and a rolling gait. The opposite is even more serious, as it not only interferes with the power of the limb, but also crushes in upon the chest and its vital organs, inhibiting the freedom of respiration, as well as the action of the heart, reducing the powers of endurance and also shortening the longevity of the animal. It is, therefore, important that the play of the elbow, while free in movement, must be strong and correct.

(Continued on Page 10)



PILLING'S
PHILA.
Impregnators for Mares and Cows
From \$2.50 up.
Artificial Impregnators are "Easy to Use."
Write for pamphlet.
GEO. P. PILLING & SON CO.,
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HOGS

THE BREEDING SEASON.

By William Dietrich.

Nature has apparently determined that animals be born in the spring of the year, because this is the most favorable season. Since there is considerable difference in the length of the period of gestation, the period from the time the dam is bred until the offspring is born of different animals, they are bred at different times of the year. Domesticated swine, however, come in heat at any time and may be bred to suit the wishes of the breeder.

Number of Litters per Year.

In former years most of the swine of the country were produced by having the sows farrow only one litter of pigs per year, and these were usually farrowed at the natural time, namely, the spring. During later years some breeders have adopted the policy of raising two litters a year, one in the spring and one in the fall. This has occasioned considerable discussion in regard to the policy of having a sow produce two litters a year as compared to one. In general it is argued that the sow cannot produce more than one good litter a year, and that if she is required to produce two, it is such a drain upon her and will reduce her to such an extent in condition and vitality that she will neither produce good pigs nor remain prolific as long as she should. From a study of the facts this does not seem to be necessarily true.

In the production of beef cattle the cow is usually required to produce one calf a year. Period of gestation with a cow is approximately nine months, and the period of lactation from nine to eleven months. Thus it will be seen that a cow for a considerable portion of each year is caring for two offspring at the same time; one is being developed within while the other is being cared for at the udder. In dairying operations this is still more intensified. Such a cow has been developed to give sufficient milk for two or three calves, which is taken from her artificially and used for commercial purposes while at the same time she is producing a calf annually. In the case of a mare conditions are the same as for the beef cow except that the period of gestation is somewhat longer, and the period of lactation not quite so long.

A sow may be bred, and then may farrow and raise her litter within six months' time. Thus she can produce two litters a year and never be caring for more than one at a time. With this in view it can easily be seen then that a sow, with proper care and feed, should be able to produce two litters a year as well, or even better, than the cow can produce one calf a year. All this is borne out by the facts, namely, that if sows are properly fed and cared for after coming to maturity, they can produce two litters annually

and do it apparently just as well as to produce one only. If there is any difference the advantages seem to be in favor of two litters per year, because if the sow is allowed to go over one season, or produce only one litter per year, she is likely not to be so sure a breeder as if she were bred immediately after weaning the litter.

The arguments for the statement that sows can produce only one good litter a year apparently originated from the fact that very often swine are not as well cared for as they should be and are considered only as the scavengers of the farm, allowed to get along as best they can on what waste feed they are able to gather. Under such conditions, of course, it takes a sow the second six months to recover what she loses during the first six months of the year when she is raising her litter.

When to Breed.

The question naturally presents itself as to what time of the year a sow should be bred. This will depend upon a considerable number of conditions.

Show Hogs.

For the small number of breeders who are in the business of producing pure bred hogs for the show ring, this has been in a large measure arbitrarily determined. It is the rule of show and fair associations of the North that the age of hogs shown during the fall show season shall be counted from the first of March of each year, and from the first of September. In the South it is one month later. Accordingly, a pig farrowed on or after March first may be exhibited during the fall show season, in the "under six months" class. Thus it is seen that a hog shown in this class, as for instance in the International Live Stock Exposition, which is held about December first, may be nine months old. This fact deceives many people, for when going around among the pens having hogs in the "under six months" class, that weigh 300 pounds, they marvel at the size of such animals, thinking that they are less than six months old, as the classification states, when in reality they may be nine months old. Likewise an animal that is to be shown in the "under a year" class must be born on or after September 1 of the previous season; hence it is anywhere from twelve to fifteen months old. On account of these rulings pigs that are produced for show purposes are farrowed as nearly as possible after the first of March or the first of September.

A pig farrowed on the last day of February would be only one day older than a pig farrowed on the first day of March, but would have to be shown in the "under a year" class as compared to one farrowed on March first being able to show in the "under six months" class. While this ought not to be such a great handicap, nevertheless it is in many cases considerable of a disadvantage because size is a

point of great importance and with many judges exercises much more influence than it should, especially under conditions as when pigs are of different ages. For the majority of breeders the conditions that determine the time at which sows are to be bred are of an entirely different nature.

Market Requirements.

The time at which pigs for the pork market are to be marketed should be taken into consideration in determining the time at which they are to be farrowed. The market requirements in general are for light hogs during the summer season and for heavy hogs during the winter. While it is true that hogs of any description and of any weight sell at any time of the year, the summer is called the light hog season because hogs of this description are in greatest demand, while the winter season is the heavy hog season such hogs are in greater demand at that time of the year. The summer is the light hog season because at that time of the year hogs are usually cut up for the fresh meat trade.

A light hog, weighing 150 to 250 pounds, makes a better and more desirable cut of fresh meat than a heavier hog would. Meat of this description finds various outlets, such as to foreign markets, to the South and East, and even back to the country where hogs are produced, a demand which is largely curtailed during the

THERE CAN BE BUT ONE BEST

Why lose profits breeding and feeding scrub hogs? Two of our O. I. C. hogs weighed 2806 lbs. We are headquarters for breeders. Will send sample pair of our famous

O. I. C. HOGS

on time, and give agency to first applicant. We are originators most extensive breeders and shippers of thoroughbred swine in the world. Write for circulars.

L. B. SILVER CO.,
337 CANTON, CLEVELAND, OHIO

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Inspected herd

BARGAINS IN POLAND - CHINAS, BERKSHIRES and CHESTER WHITES

I now have a large stock of probably the best I ever owned. Cannot tell you all here, but I have Boars and Sows, all breeds, 3 to 6 months old mated not skinned; sows bred and born ready for service. Guernsey Calves and Registered Scotch Collie Puppies. Write for prices and free circular. This stock must go and will be sold. M. B. Turkeys, Barded and White P. Rocks, B. Leghorns and Beagle Dogs.

P. F. HAMILTON, Cochranville, Pa.

HOGS.

FOR SALE—Duroc and Poland China Registered stock bred sows. Service Boars \$13 to \$20. 40-lb. Pigs \$5. Also some choice Rhode Island Red chickens. **WM. HARSHMAN, Thurmont, Md.**

FOR SALE—Some fine Yorkshire Pigs—no better stock in U. S. Just imported—new blood. **A. A. BRADLEY, Frewsbury, N. Y.**

DON'T BUY GASOLINE ENGINES UNTIL YOU INVESTIGATE "THE MASTER WORKMAN," alcohol engine, superior to any one-cylinder engine, revolutionizing power. Its weight and bulk are half that of single cylinder engine, kerosene or Less to Buy—Less to Run. Quickly, easily started. Vibration practically overcome. Cheaply mounted on any wagon. It is a combination portable, stationary or traction engine. SEND FOR CATALOGUE. **THE TEMPLE ENGINE MFG. CO., 406 West 15th St., Chicago.** THIS IS OUR FIFTY-SIXTH YEAR.

HOG CHOLERA

Having a general outbreak of Hog Cholera in this section of country, around Grove City and Harrisburg, Ohio, just South of Columbus, Ohio, we, the undersigned hog raisers secured the Snoddy Remedy (which is put up and sold by The Snoddy Remedy Co., of Alton, Ill.) and cured our hogs with it after the disease had started in our herds and some of us had lost quite a few before we heard of the Remedy. We found the Remedy a cure for Hog Cholera and Swine Plague when taken in time and properly used. We heartily recommend it to all hog raisers, as we are fully convinced that the Remedy will do all the Company claim for it.

SAMUEL TAYLOR, R. No. 1, Grove City, Ohio.
GEORGE BORROR, R. No. 3, Grove City, Ohio.
ISAAC F. MOUSER, R. No. 1, Grove City, Ohio.
WILLIAM KEGG, R. No. 3, Grove City, Ohio.

The above are all prominent and reliable farmers and have cured their sick herds with our Snoddy Remedy. Many other herds are being cured now. For full particulars and Snoddy's free book on Hog Cholera

THE SNODDY REMEDY CO., Box 290, ALTON, ILL.

winter season because of home supply. Hogs that are produced in the mentioned places, especially in the East and South, are usually of this type and are slaughtered during the fall and early winter to supply the home demand. After these are consumed, the general pork markets must be called upon for further supply, which creates a demand for fresh meats together with the demand that comes from the other parts of the country and which is more or less constant.

The winter season demands heavy hogs because this is the packing season and heavy hogs are better adapted to this purpose than light hogs. They are better because they contain less water in the carcass and therefore more nutrient value, and also they contain more fat. The fattened pig, except for the production of bacon, is better adapted to packing than the lean pig. The older and heavier the hog, as a rule, the more fat he contains; consequently the packing season calls for heavy hogs.

(This is copied word for word from Mr. Dietrich's new book on hogs, called "Swine," published by the "Breeder's Gazette," and a notice of which we have printed in this department, this month. Mr. Dietrich knows hogs and everything connected with them, so that every farmer should try to get a copy of this book. We want you to read the rest of his article on the "Breeding Season," so will print the balance of it in the April paper.)

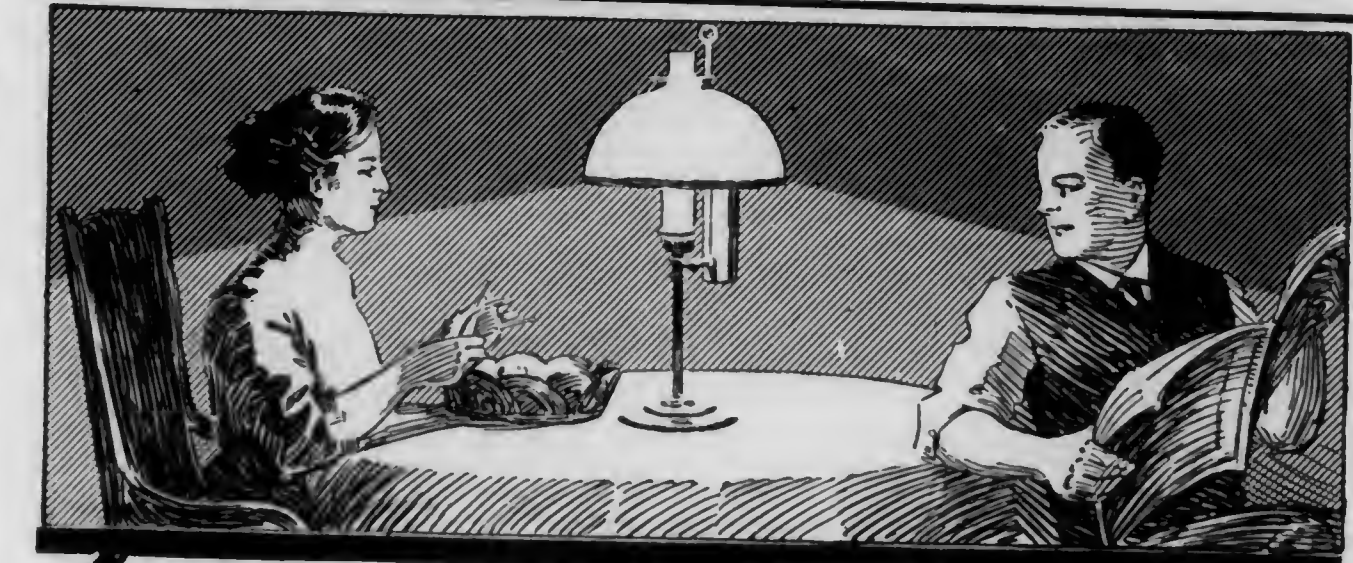
DRAIN THE HOG LOT.

There is no place upon the farm where a system of drainage can be more profitably installed than in the feed lots and around the hog pens. In too many instances large wallows are formed around the hog house and these are both unsightly and unsanitary. If the hog house is not so situated that drainage is natural an artificial drainage system will repay its cost many times.

QUICK GROWTH—CHEAP GROWTH.

Don't overlook the fact that quick growth is cheap growth. The least money is made from hogs that at some time or other are allowed to be come stunted or that are fed so sparingly that their growth extends over a long period of time. When hogs are once put into the feed lot, every

day that is subtracted from the feeding period by intelligent but heavy owner's pocket.



"Let's Not Buy Another Thing Till We Put the Fences Right"

THE far-sighted farmer will say that when temptations arise to let the ready money go for some luxury. The luxury is an *expense*; the good fence is an *investment*—a *producer*. A farmer is losing money fast until he has his farm fenced off into a sufficient number of fields to permit of the proper rotation of crops and the most advantageous pasturing of stock.

The fields of a farm are like the rooms in a hotel—the more rooms or fields, the more revenue.

AMERICAN FENCE Made of Hard, Stiff Wire of Honest Quality

is an investment that brings the most returns for the money paid out. It is made of a quality of wire drawn expressly for woven-wire-fence purposes by the largest manufacturers of wire in the world. Galvanized by latest improved processes, the best that the skill and experience of years has taught. Built on the elastic hinged-joint (patented) principle, which effectually protects the stay or upright wires from breaking under hard usage.

F. BAACKES, V. P. & G. S. A. American Steel & Wire Co.

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NOTE.—Dealers everywhere. See the one in your town and have him show you the different designs and give prices. Also get from him booklet entitled, "HOW TO BUILD A CHEAP CONCRETE FENCE POST," furnished free for the asking.



OUR FEATHERED FRIENDS

Conducted by George W. Miller.

BIG PROFITS.

I guess we're goin' to leave this town,
'Cause my pop, he inten's
To buy or rent a piece of groun'
An' go to farmin' hens.

He has a man to boss him, here,
But pop, he's sick of that.
Ef pop stan's him another year
He's goin' to eat his hat!

Us all has scrimped an' done about
The worst you ever seen—
But pop, he's got it figured out—
'Twas in a magazine.

En' he won't slave, beyond this year,
For only what he spen's,
When he can make ten thousand,
clear,
By just a-farmin' hens.

He's got a hen a'ready, too;
He brung her home today—
An' she won't have a thing to do
But lay en lay en lay!

En all the aigs of that old hen,
He'll hatch, en sell, to broil—
En pop, it does beat him, why men
Will fool with Standard Oil!

The farmers, they stay pore, no doubt,
'Cause they take aigs, en' low
Old hens to set en hatch 'em out.
A hen, she don't know how!

She ain't got no thermometer
To regerate the heat;
En pop won't trust no aigs to her;
She hes to stop en eat.

En fools around for half a day,
En 'spects her aigs to hatch.
The farmers fool with her that way
En spoil the whole darned batch.

But pop, he ain't no Reub what's
green
With hayseed in his clo'es;
He seed it in a magazine—
En so, my pop, he knows!
—Chicago News.

POPULARITY OF THE BREEDS.

The General Purpose Plymouth Rocks
are Leaders, With the Leghorn
"Egg Machine" Following.



HE Plymouth Rock holds his position as the most popular breed in America today, judging by the entries at the winter shows, according to the Secretary of the American Poultry Association. The Barred and White varieties show up very strong, and it will take some work to oust them from the place. Both are splendid breeds, both for eggs and meat.

The sprightly Leghorns, with the white variety away in the lead, are second in favor, and the Wyandottes, the Rhode Island Reds and the Orpingtons follow in order.

In New England the Reds are prime favorites, and are supported by a specialty club with the largest membership in the world. As the color markings of this breed become more fix-

ed, their splendid business qualities will put them still further up the ladder of popularity in the North, South and West, as well as in their native section.

FARMER THOMAE "MUST SHOW ME."

And now we have a communication from another New Jersey farmer, a city farmer, who owns a small farm in Middlesex county, who sleeps on the farm but makes his living in New York City. And he says to us "there is no money in chickens. I have nearly two hundred; they eat their heads off and we didn't get an egg all winter, and now that spring has come and prices are low we are getting a couple of dozen a day. A year ago the hens roosted anywhere, and they laid pretty well, but as soon as I had finished a \$500 house for them they quit laying. A hen eats more corn than a horse. No, no more farming for me; no money in it, and I don't believe friend Thomae has figured just right. At any event Thomae has to show me."

But it so happens that the editor knows Mr. Thomae personally, and a more methodical fellow never owned a chicken, and if his figures err at all it would be in underestimating his results per hen.

Our friend in Middlesex county probably stifled his hens in their new house, and if they eat more corn than a horse, he undoubtedly has a flock well fattened for market.

But that isn't the main point. It is that the majority of people will not believe a profit of a couple of dollars per hen is well within the range of practical possibility. Mr. Thomae has always figured over that sum per hen,

and it's not at all unreasonable if even ordinary care and judgment are made use of.

In the last issue of the American Poultry Advocate I find two or three cases right on this point, and I want to give you the figures:

L. G. Mayne, West Edmeston, N. Y., gives his record for 200 S. C. White Leghorns:

Month	Doz. Eggs.	
Nov., 1908	89	\$39.25
Dec., 1908	234	99.62
Jan., 1909	159½	50.67
Feb., 1909	166½	57.41
March, 1909	346	78.00
April, 1909	345	74.47
May, 1909	377	88.29
June, 1909	255	62.15
July, 1909	190	55.50
Aug., 1909	284	86.70
Sept., 1909	132	44.80
Oct., 1909	130	48.24

2708 \$791.10
Total cost of food.....\$300.00

Profit\$491.10
Profit per hen.....\$2.45½

The eggs were sold to a local dealer and not to a fancy New York City market.

Herman W. Smith, Redding, Conn., eighteen years of age, cleared \$90.21 from thirty White Wyandottes. This is a little over \$3 per hen per year.

L. H. LaTome, DeKalb Junction, N. Y., did not do so well. He had 80 S. C. White Leghorns for two months and 70 for ten months. During the twelve months he received 9,066 eggs, an average of just about 113 per hen per year. The income per hen was \$2.81. (Here is where the trouble came in. Evidently there were few winter eggs to bring up the price average). The expense per hen was \$1.34, giving a profit per hen of \$1.46.

THESE SICKLY-LOOKING CHICKS NOT FED OUR WAY

They wouldn't be wilted, forlorn and droopy as are these poor little fellows. What's the matter? Likely some one has been feeding a lot of table scraps, or sour bread, or some other indigestible mixture that is fermenting in their stomachs. Tomorrow the owner will find eight or ten dead, and wonder: "What killed my chicks?" Chicks are babies and must have baby food. That's why Puritan Chick Food is so successful in rearing chicks, keeping them well and holding down the death-rate. It just fits the interior mechanism of the digestive organs of a chick.

Puritan Chick Food (The Safe Kind)

has a delightful taste and odor to a little chick, because it is compounded of those very pure, wholesome and sweet elements that naturally attract it. Your little "puff-balls" will make things by scratching; they are always happy and busy, when fed on it. Some of the largest poultry plants use Puritan Chick Food. It pays them. It will pay you, no matter how small your flock. It is foresight, wisdom, economy and profit, for you always to keep it on hand. It's true life insurance for your chicks, all other things being equal. We guarantee it so, and refund money if you're not satisfied. No fussing about it, either—your word is final. Puritan Chick Food is put up in 5-lb. boxes for 25c; 25-lb. bags \$1.00; 50-lb. bags \$1.75; 100-lb. bags \$3.25. Ask your dealer for it. If he hasn't it we'll supply you. Booklet free. Write now for it.



Puritan-American Poultry Food Mfg. Co.,
Bound Brook New Jersey

AN EGG LAYING CONTEST.

Sporting spirit must have its fling in "Merrie" England. That may be one reason why an egg laying contest—real chickens being the participants, of course—now is raging in Sussex and in Yorkshire. The organization sponsoring this unique competition wears the title of the Utility Poultry Club. Bookmakers are reported to be doing a quiet, but rushing business in handling the wagers of enthusiasts who are backing their feathered favorites and the North and South county to win.

There are 30 pens of four birds each in either county, the Sussex entrants being housed near Rye. As would be expected, the most spirited interest has been aroused there. The latter birds already have caused the score keepers to ring up a total of 1507 eggs.

First place was taken at the outset by a pen of four white Wyandottes, which already have a record of laying 99 eggs in 28 days. On the other hand, the Yorkshire feathered hosts have not yet laid a single egg.

HOW TO TELL STORED EGGS WITHOUT BREAKING THE SHELL.

It is easily possible to tell the difference between the fresh egg and a cold-storage egg without breaking the shell, and dealers in the District of Columbia who sell stored eggs as "strictly fresh" may be prosecuted and convicted, according to statements recently of Dr. Harvey W. Wiley, the Government chief chemist, at the "High Cost of Living" hearing being conducted by a House sub-committee.

Dr. Wiley brought with him a large number of fresh eggs and also some of the cold-storage variety. Dropping them into a large vessel of water containing ten per cent salt solution, the fresh eggs immediately sank to the bottom and the "cold storage" floated on the surface. When asked how he knew the fresh eggs were fresh, Dr. Wiley replied that one of his inspectors watched the hens lay them yesterday.

HUNTING FOR 36,000,000 EGGS.

The prosecutor of Hudson County, New Jersey, has been told that there are 100,000 cases of eggs, 100,000 pounds of poultry, and immense quantities of meats of all kinds in cold storage in Hudson county, and he is trying to verify the report, but as yet has been unable to locate any such quantities.

The result of such investigations and present examination of cold storage plants will be a more proper understanding of storage methods on the part of officials, and wiser regulation of them.

DARKNESS AND HEALTH

In the hog business are never found in the same place. The mortal enemy of all disease germs is the bright sunlight and this at some time or other should have access to every corner of the feed lot and breeding pens. Darkness brings dampness, dampness brings on bad health and losses sustained from this source are hard to estimate.

The Wonderful Discoveries

MADE BY THE ORIGINATOR OF THE

PHILO SYSTEM

Have Revolutionized Poultry Keeping



THE PHILO SYSTEM IS UNLIKE ALL OTHER WAYS OF KEEPING POULTRY.

and in many respects just the reverse, accomplishing things in poultry work that have always been considered impossible, and getting unheard-of results that are hard to believe without seeing.

THE NEW SYSTEM COVERS ALL BRANCHES OF THE WORK NECESSARY FOR SUCCESS.

from selecting the breeders to marketing the product. It tells how to get eggs that will hatch, how to hatch nearly every egg and how to raise nearly all the chicks hatched. It gives complete plans in detail how to make everything necessary to run the business and at less than half the cost required to handle the poultry business in any other manner.

TWO-POUND BROILERS IN EIGHT WEEKS

are raised in a space of less than a square foot to the broiler without any loss, and the broilers are of the very best quality, bringing here three cents per pound above the highest market price.

OUR SIX-MONTHS-OLD PULLETS ARE LAYING AT THE RATE OF 24 EGGS EACH PER MONTH

in a space of two square feet for each bird. No green cut bone of any description is fed, and the food used is inexpensive as compared with food others are using.

Our new book, the Philo System of Poultry Keeping, gives full particu-

lars regarding these wonderful discoveries, with simple, easy-to-understand directions that are right to the point and 15 pages of illustrations showing all branches of the work from start to finish.

DON'T LET THE CHICKS DIE IN THE SHELL

One of our secrets of success is to save all the chickens that are fully developed at hatching time, whether they can crack the shell or not. It is a simple trick and believed to be the secret of the ancient Egyptians and Chinese which enabled them to sell the chicks at 10 cents a dozen.

CHICKEN FEED AT 15 CENTS A BUSHEL

Our book tells how to make the best green food with but little trouble and have a good supply, any day in the year, winter or summer. It is just as impossible to get a large egg yield without green food as it is to keep a cow without hay or fodder.

OUR NEW BROODER SAVES 2 CENTS ON EACH CHICKEN.

No lamp required. No danger of chilling, overheating or burning up the chickens as with the brooders using lamps or any kind of fire. They also keep all the lice off the chickens automatically or kill any that may be on them when placed in the brooder. Our book gives full plans and the right to make and use them. One can easily be made in an hour at a cost of 25 to 50 cents.

TESTIMONIAL.

Elmira, N. Y., Oct. 30, '09.
Mr. E. R. Philo, Elmira, N. Y.
Dear Sir:—No doubt you will be interested to learn of our success in keeping poultry by the Philo System. Our first year's work is now nearly completed. It has given us an income of over \$500.00 from six pedigree hens and one cockerel. Had we understood the work as well as we now do, after a year's experience, we could easily have made \$1,000.00 from the six hens. In addition to the profits from the sale of pedigree chicks, we have cleared over \$960.00 running our hatchery plant, consisting of 56 Cycle Hatchers. We are pleased with the results, and expect to do better the coming year. With best wishes, we are,
Very truly yours,
(Mrs.) C. P. Goodrich.

Three-Pound Roasters ten Weeks Old

E. R. PHILO, Publisher,

Send \$1.00 direct to the publisher and a copy of the latest revised edition of the book will be sent by return mail.
371 Third Street, ELMIRA, N. Y.

FRUITS AND VEGETABLES

MARCH SPRAYING.

Apple—Spray before buds start. 1 lb. copper sulphate to 25 gallons of water. It's ready for use as soon as it dissolves. Must not be used after buds open. If you haven't already done so a second time spray now with lime-sulphur for San Jose scale.

Cherry—Same copper sulphate spraying as for apple.

Grapes—Same as for cherry.

Peach—Same.

Pear—Same.

Plum—Same.

Quince—Same.

Raspberry—Same. Spray before growth starts.

Strawberry—Spray with Bordeaux mixture before blossoms open.

RED RASPBERRIES A VERY PROFITABLE CROP.

Did you ever know a season, or a place, when it was possible to fill the demand for red raspberries, at good prices?

In the "Fruit Grower" there is an article on growing red raspberries that seems to us good enough to reprint here for the benefit of our readers, and we are giving it to you with just a little clipping here and there, to save room without spoiling the article. We have left out the introduction. It's fine, and we wish you might read it, but we just haven't the room for it. The article is by Mr. Charles E. Chapman, of North Stonington, Conn., and he starts off by saying:

"I will now give my method of growing the red raspberry, in which I have been equally as successful as with black raspberry. The red raspberry does not require so heavy a soil as the black raspberry. In fact, it does not do well on a heavy soil. They do best for me on a gravelly loam, but will do well on any soil that is not heavy or dry and thin.

A hoed crop of either corn or potatoes, or any other crop, should precede the raspberries. I prefer when possible to break up a piece of sod land and plant to corn the first year and the second year plant to potatoes. I think potatoes are one of the best crops to precede any of the small fruits, as they leave the ground in good condition.

Prepare the ground as for any other hoed crop, by plowing and harrowing thoroughly and smoothly (by thorough spading and hoeing for garden). For fertilizer I prefer stable manure to any other for any of the small fruits, but as I never have enough I am obliged to use commercial fertilizer. Stable manure is best plowed in, while I prefer to use commercial fertilizer distributing alongside the rows and cultivate in after plants are set.

Everyone must be a law unto himself in regard to fertilizing, but there is no danger of getting the ground too rich. I mark the ground with a line so as to have the rows perfectly straight, making the rows four feet apart. Then with a horse and plow furrow the ground where the marks are, going twice in each furrow, and your rows are straight, which greatly facilitates cultivating.

In setting, take a bunch of plants on the left arm, having the roots moistened, and standing with one foot on each side of the row, begin setting, placing the plants in the middle of the furrow and bringing the soil up to the plants with the feet, and there is no need of any hand work at all. See that the earth is well firmed about the plant, being very careful not to break the new sprout that may have started to grow. If you are setting your own plants, dig and set them as early in the spring as you can, for the earlier this is done the better, as the plants have more time to grow.

Three inches is deep enough to cover the plants, leaving the rest of the furrow to fill up with the cultivator. Set the plants about eight inches apart in the row.

After you have finished setting the piece, go over it with pruning shears and basket, and cut off the canes, leaving them about six or eight inches above the ground. Of course, if you have bought your plants, this will not be necessary, as they are always shipped with the tops cut off, but in that case you will be obliged to bend the back a little more in setting, but you will not be obliged to go over them with the shears.

Do not allow more than two plants to grow from each cane set, and destroy all others on the part that you reserve for fruit. If you want plants, as you will if you follow this method, grow them by themselves, on a separate piece reserved for that purpose.

When the plants are a foot high, nip off the tops so they will send out laterals or side branches and grow in the form of a bush and by keeping off all other sprouts but the ones reserved for fruiting, the nipped canes will, by fall, become large and capable of producing a large amount of fruit the next season. There will be plenty of room for the plants to branch out and make fruiting wood, and the fruit will be large and fine.

An acre of ground set in this way takes approximately 16,000 plants. By fall you will have 25,000 or 30,000 plants, which, treated in the way I have advised, will be capable of yielding a large and full crop the next year after setting. This is no theory but an actual, demonstrated fact. Immediately after fruiting, remove the old canes that have borne their crop.

In the spring of the second year, allow only enough canes to grow to take the place of the ones that are to fruit that year and proceed to nip them in the same way, keeping the

ground cultivated and free from weeds at all times, but do not cultivate during blossoming time, nor until fruiting is over if possible to avoid it. Continue in this way as long as the patch is kept to fruit, which, with me, is not profitable after the third year fruited. In the meanwhile have a new patch ready to take the place of the old one.

Having thoroughly tried out this system of growing red raspberries, I believe it to be the best and most profitable way of growing them.

No pruning of the canes is done at all, other than to cut off the ends of the branches that may have been winter killed, leaving all the live wood on the cane, which, if the ground is rich enough, is able to bear all the fruit that will set thereon. The average red raspberry field, in the hands of the average grower, soon becomes a tangled thicket of canes and grass and disease, and the fruit, what there is of it, is small and inferior, while by the method I have given, the fruit is of fine quality, and the quantity is satisfactory and a full crop is secured the next year after setting, the same as with strawberries.

Steel Fence Posts



are to be driven. Cost one-half the price of wood posts. Will last a life time. Plain, barbed or woven wire of any kind can be used. Over one million posts in use. Recommendations from 160 steady users. Large illustrated catalog sent free; contains much valuable information about fence construction, posts and their use. Of the one million posts in use, I never knew a man to return to wood posts after using the steel posts. The posts are reinforced at the ground line with a vitrified clay collar which protects the post and gives it an excellent surface bearing where it is needed. One man used 10,000 posts. By driving the posts it saves the labor of digging post holes. They are fire-proof and everlasting in every respect. The greatest farm fence post on earth. Our customers say so and they know, for they have used them. Write to-day for free catalog.

J. H. DOWNS,

1298 Broadway, New York City.

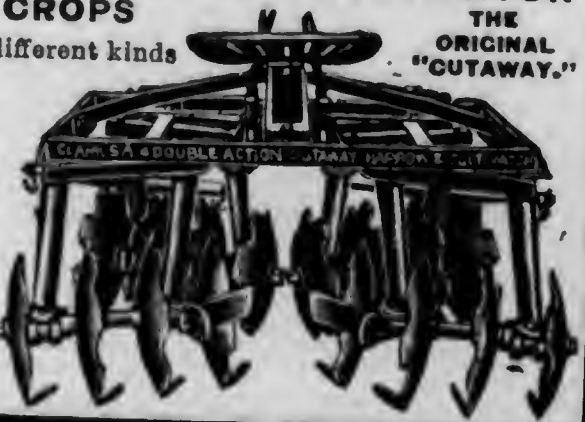
CLARK'S
DOUBLE ACTION HARROW & CULTIVATOR
FOR 100% CROPS

THE ORIGINAL "CUTAWAY."

With this tool more different kinds of work can be done, with less effort, than with any other. CLARK'S is the only Disk Cultivator that completely embodies the double action principle. It will do the work of several disk machines that would cost you several times as much, and do it more thoroughly, because it has 4 gangs instead of only 2. The draft is always from centre—suitable for 2 light horses. Equipped with Extension Head and Jointed Pole, and when so ordered two large disks for Listing are supplied.

Send today for our free Book, "Large Hay Crops."

CUTAWAY HARROW COMPANY,
806 Main St., HIGGANUM, CONN.



This method applies equally as well in the garden as in the field, for if you are setting fifty or a hundred plants for family use, you can put them on a small area and get more and better fruit than in any other way, and have more ground left for other products. The method of setting I have described is the best I have ever tried. It is recommended by some to set the plants with a spade, but one man can set more plants in a day by this method than two can with spades.

By this method of growing you can get as good a crop the next year after setting as any subsequent crop. An acre grown in this way should yield from two to three thousand quarts or four to six thousand pints, and, at the prevailing price here, will net an average \$250 per acre. Of course, the profits depend on the location, markets, etc.

Regarding varieties, I have tried or seen tried all of them. The most popular one the country over is the Cuthbert, but it has never done very well for me. Its foliage rusts and this makes the fruit inferior, and it is not entirely hardy. The best and most profitable variety I have tried is the King. It originated, if I am correctly informed, in Virginia. It has proven with me to be the hardest, most vigorous grower and most productive of all the red varieties. It ripens very early and makes a long season, lasting nearly as long as Cuthbert and fully ten days earlier. The fruit is large and the finest color of any of the reds, being a bright crimson, and the quality suits all who try it."

STRAWBERRIES.

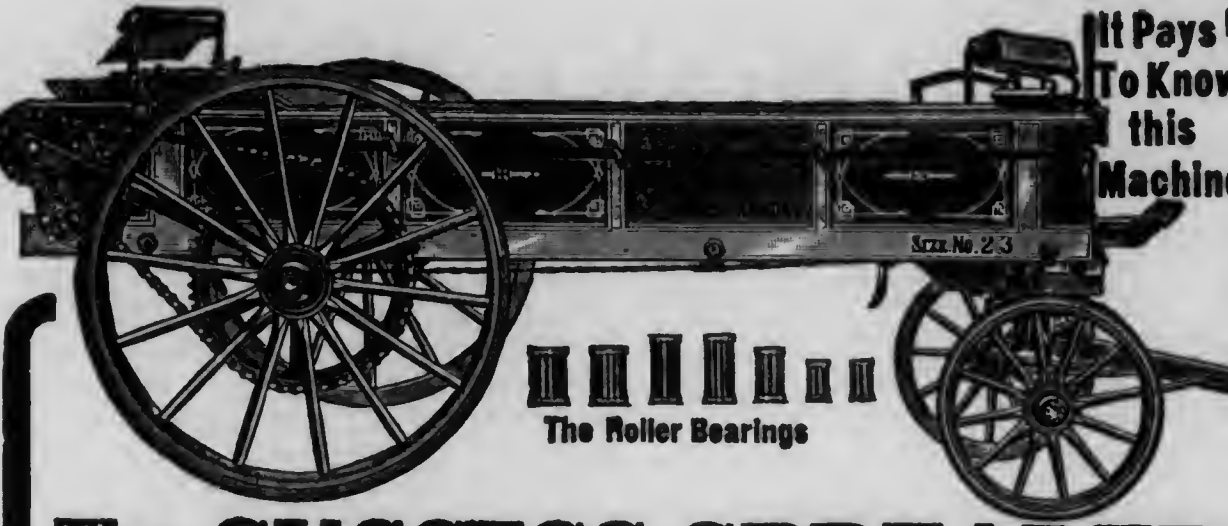
If you are going to set out a strawberry bed this spring, the first step is to select a well drained, well cultivated piece of soil, where the insect pests have been reduced to a minimum and the previous crop acted as a weed killer. Have it reasonably level so as not to lose the fertilizer too rapidly, and it may slope in any direction—south or east growing a crop a few days earlier.

Stable manure is the best fertilizer, and it is better if used in the previous year's crop. However, if you haven't such a plot, get the manure on and turned under very early this spring, so as not to interfere with setting your plants early.

If the manure is put on this spring, it will not be available for some little time, not until it begins to decay, and it's, therefore, well to use a little commercial fertilizer to give the plants a good start. Use a good grade, about 3.5 nitrogen; 8 phosphoric acid; 9 potash. Give each plant a good handful of the fertilizer, sprinkled right around and over it. After all have had a dose, with a broom, shake the leaves so that the fertilizer will fall to the ground close to the plant. Then hoe it well in. Don't be too strenuous, as the foliage should not be frayed nor the plants loosened.

You want to have your plants make a heavy growth during the spring, good, large crowns, because in the summer their vitality goes to making plants, in the fall to formation of fruit buds, and, after a dormant winter, to fruit next season. Consequently, about the first week of August, give them even a heavier treatment of fertilizer. Be careful that it's supplied on a clear day and that it's well shaken off the foliage, because,

It Pays To Know this Machine



The SUCCESS SPREADER

First choice of everybody who knows spreaders. In use at nearly all Agricultural Colleges, Government Stations and Experimental Farms. Used at all Iowa State Institution farms. The only roller-bearing spreader. Recognized as being a horse lighter draft than others. Working parts strong and simple. No cog wheel gears. Power applied direct by strong chain drive. It cuts in half the time and labor of spreading manure and doubles manure value. Makes it possible to keep up soil's fertility with home-produced manure alone, no need to buy commercial fertilizers. You need a success spreader. It will make money for you—is doing it for thousands of farmers. Success Book Free. Write for it to

KEMP & BURPEE MFG. CO., Syracuse, N. Y.

you know, potash will burn the leaves. Hoe the bed at once after applying the fertilizer.

If you will follow these instructions, keeping the bed well cultivated, you will have the finest patch you ever laid eyes on.

Just one word more; we would give them a third dose of fertilizer in November, before mulching.

THE POSTAL SAVINGS BANK BILL.

In all probability this country will have no post office savings banks for some years to come at any rate. As yet public opinion is not sufficiently pronounced in favor of it, and there is quite a strong feeling that the disadvantages of such a system are too many and apparent to give those who

do believe in it reasonable hope of its becoming a law in this Congress.

THE GARDEN IN MARCH.

Keep on transplanting your tomato and egg plants so as to have strong, hardy, well rooted plants when the time comes to set them out.

The first part of March is a dull time so far as the garden is concerned.

If you haven't already patched up the fences, cleared away all the rubbish, and got thing into ship-shape, don't lose any more time about it. Unless it's done now it won't be done all summer, and you'll waste your time and temper endeavoring to keep the animals out of the garden patch.

The manure can be spread now, while there is still frost in the ground, if you prefer. Use cow manure, it's freer from weed seeds.



The
Stark Year Book
for 1910

is ready to mail. It will be sent to any person interested in fruit-growing on receipt of 7 cents to cover postage. The Stark Year Book for 1910 represents an entirely new idea in nurserymen's literature—it is a work of art as well as a

catalogue of Stark Nursery products. Within its covers are 32 full-page illustrations of fruits and flowers, representing 175 varieties, done in four colors, and exactly reproducing nature. 84 pages are devoted to descriptions, prices, and records.

Stark Delicious, the apple that has revolutionized orchard planting and established a new standard of apple values (selling at \$10.00 per bushel box this year); **Stark King David**, another apple of wondrous quality and merit; **Stark King Philip**, a hardy black grape of California grape quality, and dozens of the very best things in the horticultural world are fully described, illustrated, and priced.

To any one planting one tree or many, of fruits or ornamental, this book is of inestimable value—a horticultural text-book—a guide to proper selection.

Stark trees have stood the supreme test of actual planting for 85 years—they are the yard-stick by which all other nursery products are measured—they are the first choice of this country's most successful orchardists. The success of the orchard is dependent on the kind and quality of tree planted. Stark varieties are the best of the best. Our record of 85 years of successful selling is a positive guarantee of tree quality.

Before you decide to buy, send 7 cents for the Stark Year Book—do it today before the edition is exhausted.

Stark Bro's Nurseries and Orchards Co.

Lock Box 81, Louisiana, Missouri

HOME BEAUTIFUL

Conducted by Georgie Middleton Fisher

THE WELSH FAIRIES.

(Mildred Howells in March Century)
We are the little people
Who dwell in hill and dale,
Or on the mountain passes
Where clouds go drifting pale.

The souls of them that perished
Before the good saints came,
We died in pagan darkness,
But innocent of blame.

Yet since to Christian heaven
Our spirits may not win,
God gave us this fair country
We loved to shelter in.

The honest folk about us
Good hap and gifts we bring,
And to our gold harp's music
Joyous we dance and sing.

But in our hearts lurks sadness,
For on the Judgment Day,
We, with our hills and valleys,
Forever pass away.

A LENTEN PRAYER.

Turn thou us, O good Lord, and so shall we be turned. Be favourable, O Lord, Be favourable to thy people, Who turn to thee in weeping, fasting, and praying. For thou art a merciful God, Full of compassion, Long-suffering, and of great pity. Thou sparest when we deserve punishment. And in thy wrath thinkest upon mercy. Spare thy people, good Lord, spare them, And let not thine heritage be brought to confusion. Hear us, O Lord, for thy mercy is great, And after the multitude of thy mercies look upon us; Through the merits and mediation of thy blessed Son, Jesus Christ our Lord. Amen.

HOW MUCH SHOULD A WIFE ENDURE?

This is the day of woman. She has the center of the stage. She is evolving into something more independent, more individual. Coincident with this evolution is the increase in divorce—divorce terminating one in every twelve marriages in the United States, most of the decrees being granted to wives. What has led to this rebellion, and how much do objectors to divorce think a woman should suffer before she does rebel? At what cost of self-respect should she force her marriage to "success"?—Read Everybody's Magazine for March, for the rest of the article.

WAYS OF SERVING RICE.

I promised in last number I'd print some rice recipes this month:

Rice Bread.—Take a pint of boiled or steamed rice left over from dinner, cover with water over night. In the morning add one pint of wheat flour, two eggs and a teaspoonful of butter, salt, yeast powder and milk enough to make it the consistency of custard. Bake in patty pans.

Rice Oven Bread.—One-fourth of a pound of rice boiled very soft, three-fourths of a pound of wheat flour,

one gill of yeast, one gill of milk and a little salt. Bake in a moderate oven.

Rice and Tomatoes.—Stew in a pint of water seven or eight large tomatoes with a half pound of bacon, half an onion (cut up) and a teaspoonful of salt, until tomatoes are nearly cooked. Add a pint of rice that has been thoroughly washed and boil or steam until the rice grains are soft. Stir occasionally with a fork to keep tomatoes mixed. Serve either plain or with gravy.

Okra Pillau.—One quart of okra, one pound of bacon, half an onion. Slice the bacon, cut up the okra and onion as for soup and fry together until light brown. Then put in a little over a quart of water and add a pint of washed rice. Boil or steam all together until the rice is well done. Stir and take up with a fork. This will please our friends down south.

Rice Egg Balls.—Boil hard five eggs, remove the shells and put through potato ricer or a sieve, with an equal amount of boiled rice. Season with salt, pepper and butter. Make into balls and dip into raw egg; then put in crumbs, and fry in deep, hot fat. Drain and place on small pieces of buttered toast and pour over the whole melted butter.

Rice Omelet.—Beat separately three eggs, add to the yolks one-third cup of milk, one-half cup of rice, two tablespoonfuls of butter, little salt and pepper, and lastly the whites. Cook over a gentle fire.

Fried Rice.—A cup of cold rice heated in milk or water. While warm stir in two eggs and a piece of butter. Make into small cakes, roll alternately in cracker crumbs and whites of eggs or butter, and fry in deep, hot fat.

Rice and Toasted Cheese.—Cut squares of cold boiled rice and fry in butter until a rich brown. Cut cheese into squares about half as large, hold on a fork to the fire, and when softened place quickly on the square of fried rice.

Fruit Croquettes.—Cup of boiled rice, half cup of flour, teaspoonful of baking powder; moisten and thoroughly mix with a beaten egg and milk enough to make it as thick as biscuit dough. Grease a plate and on it put a large spoonful of this mixture, spreading it to a half inch in thickness. Upon this put any fresh fruit, such as sliced apples, peaches, pears, cherries, blueberries or any kind of cooked fruit; bring over the edges and pinch together. Lift on a ladle and roll alternately in egg and crumbs, then drop in deep, hot fat and fry. Serve with powdered sugar and cream.

Rice Fritters.—One cup of boiled rice, one cup flour, one cup milk, three eggs, butter half the size of an egg. Place teaspoonful of lard in the skillet, drop into it the mixture, being careful to keep each separate. Turn with a griddle-cake shovel and serve with maple syrup.

Rice Snowballs.—One cup of rice, boiled and cooled; whites of three eggs; three spoonfuls of sugar and one teaspoonful of melted butter;

mix thoroughly and form into balls. Set onto a flat, low dish, place in the oven and bake without browning about ten minutes. Pour over this whites of three eggs, beaten dry, to which three teaspoonfuls of pulverized sugar and a half teaspoonful of lemon extract are added. Set in a cold oven to just dry and not brown and serve with whipped cream.

Custard Pudding.—Mix together one cup of cooked rice, four well-beaten eggs, one small cup of sugar, a pinch of salt and a little grated nutmeg. Add two cups of milk, let it get hot on top of the stove, then bake in a moderate oven till firm. Make a meringue with the whites of two eggs and two tablespoonfuls of white sugar and spread over the top; brown in the oven.

Rice Waffles.—One cup of cold boiled rice, pressed through a sieve. One cup of flour, half a teaspoonful of salt, tablespoonful of sugar, teaspoonful and a half of baking powder, two eggs, heaping teaspoonful of butter and sweet milk enough to bind. First rub the butter into the sugar, sift together flour, salt and baking powder; add to the sugar and butter; then add the yolks of eggs and the rice; thin this with milk to the consistency of cake batter, fold into it the beaten whites of the eggs. Have the waffle irons hot and carefully greased; fill two-thirds full, close and turn when brown.

Rice Pudding Without Eggs.—Put into a well-buttered pan half a pound of rice, well washed; pour over it three pints of cold milk, sweeten and

LADIES WANTED

—TO PURCHASE their groceries, soaps, etc., by our Factory-to-Family plan. We give you full value for your money and in addition the same value in premiums. We are also making a SPECIAL OFFER of FIVE EXTRA CERTIFICATES to secretaries of Clubs-of-ten. Write for free catalogue. Papworth Premium Co., 512 St. Marks Ave., Syracuse, N. Y.

Just Six Minutes to Wash a Tubful!

This is the grandest Washer the world has ever known. So easy to run that it's almost fun to work it. Makes clothes spotlessly clean in double-quick time. Six minutes finishes a tubful.

Any Woman Can Have a 1900 Gravity Washer on 30 Days' Free Trial. Don't send money. If you are responsible. Let us pay the freight. See the wonders it performs. Thousands being used. Every user delighted. They write us bushels of letters telling how it saves work and worry. Sold on little payments. Write for fascinating Free Book today. All correspondences should be addressed to 1900 Washer Co., 475 Henry St., Binghamton, N. Y. If you live in Canada, address Canadian 1900 Washer Branch Houses: We maintain branches at 1907 Broadway, New York City; and 1113 Flatbush Ave., Brooklyn; and in all principal cities. We also make shipments from our warehouses in Kansas City, San Francisco and Seattle.



Write to Mr. A. L. Rice, Manuf'r., 47 North St., Adams, N. Y., and he will send you a free trial package, also color card and full information showing you how you can save a good many dollars. Write to-day.

BLOODED STOCK for March.

BLOODED STOCK for March.

flavor to taste; put a little butter and nutmeg over the top. Bake two and one-half hours in a slow oven.

Chocolate Rice Pudding.—One quart of sweet milk, three ounces grated chocolate, one cup of boiled rice, warm, one cup of sugar, yolks of four eggs. Scald together the milk and chocolate, let them cool, then add to the rice with the eggs and sugar, and bake. When done, spread the well-beaten whites and four tablespoonfuls of sugar over the top and brown. Serve with whipped cream.

Rice Pie.—With good paste line a deep pie pan, boil half cup of rice in half a pint of milk and water until very soft, and rub through a sieve; add half a pint of cream, three beaten eggs, a pinch of salt and a cup of sugar. Pour into the paste-lined tins and bake twenty minutes.

Rich Orange or Lemon Pie.—Cup sugar, yolks of three eggs, one teaspoonful of butter, three teaspoonfuls of sweet milk, two teaspoonfuls of boiled rice mashed fine, grated rind and juice of one orange or lemon; beat all together, pour into lined pie pan and bake. When done, spread with meringue of whites and sugar, and brown.

SOME GOOD BUNS.

Weisbaden Buns.—Scald one pint of milk; when cool, add two tablespoonfuls of sugar, one tablespoonful of butter, one heaping teaspoonful of salt, one cupful of water, one yeast cake, flour to make a soft, firm dough. Let rise in a warm place. When light, turn out on floured board. Do not knead; roll lightly with rolling-pin in a sheet an inch thick, cut with biscuit-cutter and let rise. When light, bake, and when nearly done wash over top with the following: The white of one egg, one teaspoon of milk, two tablespoonfuls of sugar, three drops of vanilla. Have one-half cupful of chopped nut meats. Wash tops of buns, sprinkle nut meats over and set back in oven a few minutes.

Spice Buns.—One cupful of warm water, two cupfuls of milk, one cupful of sugar, one tablespoonful of salt, a piece of lard or good dripping size of an egg, one compressed yeast cake. Mix in flour to make a soft sponge; stand in a warm place to rise. If wanted for breakfast, this part must be mixed at noon the day before. At night add one cupful of molasses, one teaspoonful of soda, one cupful of currants, one-half teaspoonful of cinnamon, nutmeg and a dash

Paint Without Oil

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Write to Mr. A. L. Rice, Manuf'r., 47 North St., Adams, N. Y., and he will send you a free trial package, also color card and full information showing you how you can save a good many dollars. Write to-day.

of cloves. Add flour to make in a firm dough, let rise over night; in the morning make into shape and let rise about twenty minutes. Bake, and just before taking from oven wash over with raw egg.—"Receipts Tried and Approved," in The Ladies World for February.

DO YOU KNOW THE FIRELESS COOKER?

If all housekeepers thoroughly understood the merits of the fireless cooker, they would no more be without one than they would without a sewing machine or a cooking stove. Some one has said that they should not have been called fireless cooker, as the name is calculated to inspire mistrust. Heat retainer would have been a better appellation, as the principle upon which they cook is the retaining of the heat by perfect insulation after the food has been brought to the boiling point on the stove, or, as in the case of the roasting attachment, the heat is furnished by the use of two hot radiators, one of which is placed under the pail and the other on the rack inside the pail.

By the use of the fireless cooker the housekeeper can start her meat, vegetables, soup, etc., to boiling on the coal or flame stove while she is preparing breakfast and transfer them, still boiling, to the cooker to be finished. It is now generally admitted to be the most perfect and healthful way of cooking meats, cereals, and all articles of food which require long, slow heat, and its possibilities in the way of pot pies, stews, puddings, etc., are almost innumerable.

It not only saves fuel, time and labor, but by rendering cheap cuts of meat palatable and nutritious it will also be found an actual saving in meat bills and in many other ways.

Imagine on a hot day having the dinner all packed away in the fireless cooker, the kitchen cool and straight and the busy housewife with the much coveted time for sewing or reading. Yet this is no fairy tale, but the actual conditions which exist in the kitchen where the fireless cooker is used. No running back and forth to keep up the fires, no ashes or dirt, no smoked utensils to wash; the fireless cooker works the same night and day and does its work more perfectly than an ordinary stove.

The editor used one all last summer and would positively not try to get along without it. This is one way to reduce the cost of living.

IN THE APRIL CENTURY

Miss Sinclair's "The Creators," running serially in The Century, is revealing itself as a penetrating and lively story of various groups of London writers in prose and verse, whose love affairs give the author opportunity to consider marriage in its relationship to literary occupations. Three of the short stories of the April number—"The Horsiness of Hutch," by Kenneth Brown; "The Martins," by Evelyn Van Buren; and "Clothes and the Man," by Edith Rickert—are distinctly humorous. Caroline Abbott Stanley, author of "Order No. 11," has written in "A Daughter of the South," a serious short story interpretative of Southern life and character.

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causing the bag to burst and scald the patient. The WELKOM WARMER is made of metal, and is heated within one minute by the lighting and insertion of a paper tube containing a blazeless, smokeless and odorless fuel generating a heat of uniform temperature which lasts two hours at a cost of less than one cent. It is curved to fit any portion of the body and when in use is placed in a bag to modify the heat and held in place by means of a belt allowing the wearer to move about at will.

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HOME BEAUTIFUL

Conducted by Georgie Middleton Fisher

THE WELSH FAIRIES.

(Mildred Howells in March Century)
We are the little people
Who dwell in hill and dale,
Or on the mountain passes
Where clouds go drifting pale.

The souls of them that perished
Before the good saints came,
We died in pagan darkness,
But innocent of blame.

Yet since to Christian heaven
Our spirits may not win,
God gave us this fair country
We loved to shelter in.

The honest folk about us
Good hap and gifts we bring,
And to our gold harp's music
Joyous we dance and sing.

But in our hearts lurks sadness,
For on the Judgment Day,
We, with our hills and valleys,
Forever pass away.

A LENTEN PRAYER.

Turn thou us, O good Lord, and so shall we be turned. Be favourable, O Lord, Be favourable to thy people, Who turn to thee in weeping, fasting, and praying. For thou art a merciful God, Full of compassion, Long-suffering, and of great pity. Thou sparest when we deserve punishment. And in thy wrath thinkest upon mercy. Spare thy people, good Lord, spare them, And let not thine heritage be brought to confusion. Hear us, O Lord, for thy mercy is great, And after the multitude of thy mercies look upon us; Through the merits and mediation of thy blessed Son, Jesus Christ our Lord. Amen.

HOW MUCH SHOULD A WIFE ENDURE?

This is the day of woman. She has the center of the stage. She is evolving into something more independent, more individual. Coincident with this evolution is the increase in divorce—divorce terminating one in every twelve marriages in the United States, most of the decrees being granted to wives. What has led to this rebellion, and how much do objectors to divorce think a woman should suffer before she does rebel? At what cost of self-respect should she force her marriage to "success"?—Read Everybody's Magazine for March, for the rest of the article.

WAYS OF SERVING RICE.

I promised in last number I'd print some rice recipes this month:

Rice Bread.—Take a pint of boiled or steamed rice left over from dinner, cover with water over night. In the morning add one pint of wheat flour, two eggs and a teaspoonful of butter, salt, yeast powder and milk enough to make it the consistency of custard. Bake in patty pans.

Rice Oven Bread.—One-fourth of a pound of rice boiled very soft, three-fourths of a pound of wheat flour,

one gill of yeast, one gill of milk and a little salt. Bake in a moderate oven.

Rice and Tomatoes.—Stew in a pint of water seven or eight large tomatoes with a half pound of bacon, half an onion (cut up) and a teaspoonful of salt, until tomatoes are nearly cooked. Add a pint of rice that has been thoroughly washed and boil or steam until the rice grains are soft. Stir occasionally with a fork to keep tomatoes mixed. Serve either plain or with gravy.

Okra Pillau.—One quart of okra, one pound of bacon, half an onion. Slice the bacon, cut up the okra and onion as for soup and fry together until light brown. Then put in a little over a quart of water and add a pint of washed rice. Boil or steam all together until the rice is well done. Stir and take up with a fork. This will please our friends down south.

Rice Egg Balls.—Boil hard five eggs, remove the shells and put through potato ricer or a sieve, with an equal amount of boiled rice. Season with salt, pepper and butter. Make into balls and dip into raw egg; then put in crumbs, and fry in deep, hot fat. Drain and place on small pieces of buttered toast and pour over the whole melted butter.

Rice Omelet.—Beat separately three eggs, add to the yolks one-third cup of milk, one-half cup of rice, two tablespoonfuls of butter, little salt and pepper, and lastly the whites. Cook over a gentle fire.

Fried Rice.—A cup of cold rice heated in milk or water. While warm stir in two eggs and a piece of butter. Make into small cakes, roll alternately in cracker crumbs and whites of eggs or butter, and fry in deep, hot fat.

Rice and Toasted Cheese.—Cut squares of cold boiled rice and fry in butter until a rich brown. Cut cheese into squares about half as large, hold on a fork to the fire, and when softened place quickly on the square of fried rice.

Fruit Croquettes.—Cup of boiled rice, half cup of flour, teaspoonful of baking powder; moisten and thoroughly mix with a beaten egg and milk enough to make it as thick as biscuit dough. Grease a plate and on it put a large spoonful of this mixture, spreading it to a half inch in thickness. Upon this put any fresh fruit, such as sliced apples, peaches, pears, cherries, blueberries or any kind of cooked fruit; bring over the edges and pinch together. Lift on a ladle and roll alternately in egg and crumbs, then drop in deep, hot fat and fry. Serve with powdered sugar and cream.

Rice Fritters.—One cup of boiled rice, one cup flour, one cup milk, three eggs, butter half the size of an egg. Place teaspoonful of lard in the skillet, drop into it the mixture, being careful to keep each separate. Turn with a griddle-cake shovel and serve with maple syrup.

Rice Snowballs.—One cup of rice, boiled and cooled; whites of three eggs; three spoonfuls of sugar and one teaspoonful of melted butter;

BLOODED STOCK for March.

mix thoroughly and form into balls. Set onto a flat, low dish, place in the oven and bake without browning about ten minutes. Pour over this whites of three eggs, beaten dry, to which three teaspoonfuls of pulverized sugar and a half teaspoonful of lemon extract are added. Set in a cold oven to just dry and not brown and serve with whipped cream.

Custard Pudding.—Mix together one cup of cooked rice, four well-beaten eggs, one small cup of sugar, a pinch of salt and a little grated nutmeg. Add two cups of milk, let it get hot on top of the stove, then bake in a moderate oven till firm. Make a meringue with the whites of two eggs and two tablespoonfuls of white sugar and spread over the top; brown in the oven.

Rice Waffles.—One cup of cold boiled rice, pressed through a sieve. One cup of flour, half a teaspoonful of salt, tablespoonful of sugar, teaspoonful and a half of baking powder, two eggs, heaping teaspoonful of butter and sweet milk enough to bind. First rub the butter into the sugar, sift together flour, salt and baking powder; add to the sugar and butter; then add the yolks of eggs and the rice; thin this with milk to the consistency of cake batter, fold into it the beaten whites of the eggs. Have the waffle irons hot and carefully greased; fill two-thirds full, close and turn when brown.

Rice Pudding Without Eggs.—Put into a well-buttered pan half a pound of rice, well washed; pour over it three pints of cold milk, sweeten and

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Don't send money. If you are responsible, you can try it first. Let us pay the freight. See the wonders it performs. Thousands being used. Every user delighted. They write us bushels of letters telling how it saves work and worry. \$6 sold on little payments. Write for fascinating Free Book today. All correspondence should be addressed to 1900 Washer Co., 475 Henry St., Binghamton, N. Y. If you live in Canada, address Canadian 1900 Washer Co., 355 Yonge St., Toronto, Canada.

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BLOODED STOCK for March.

flavor to taste; put a little butter and nutmeg over the top. Bake two and one-half hours in a slow oven.

Chocolate Rice Pudding.—One quart of sweet milk, three ounces grated chocolate, one cup of boiled rice, warm, one cup of sugar, yolks of four eggs. Scald together the milk and chocolate, let them cool, then add to the rice with the eggs and sugar, and bake. When done, spread the well-beaten whites and four tablespoonfuls of sugar over the top and brown. Serve with whipped cream.

Rice Pie.—With good paste line a deep pie pan, boil a half cup of rice in half a pint of milk and water until very soft, and rub through a sieve; add half a pint of cream, three beaten eggs, a pinch of salt and a cup of sugar. Pour into the paste-lined tins and bake twenty minutes.

Rich Orange or Lemon Pie.—Cup sugar, yolks of three eggs, one teaspoonful of butter, three teaspoonfuls of sweet milk, two teaspoonfuls of boiled rice mashed fine, grated rind and juice of one orange or lemon; beat all together, pour into lined pie pan and bake. When done, spread with meringue of whites and sugar, and brown.

SOME GOOD BUNS.

Weisbaden Buns.—Scald one pint of milk; when cool, add two tablespoonfuls of sugar, one tablespoonful of butter, one heaping teaspoonful of salt, one cupful of water, one yeast cake, flour to make a soft, firm dough. Let rise in a warm place. When light, turn out on floured board. Do not knead; roll lightly with rolling-pin in a sheet an inch thick, cut with biscuit-cutter and let rise. When light, bake, and when nearly done wash over top with the following: The white of one egg, one teaspoon of milk, two tablespoonfuls of sugar, three drops of vanilla. Have one-half cupful of chopped nut meats. Wash tops of buns, sprinkle nut meats over and set back in oven a few minutes.

Spice Buns.—One cupful of warm water, two cupfuls of milk, one cupful of sugar, one tablespoonful of salt, a piece of lard or good dripping size of an egg, one compressed yeast cake. Mix in flour to make a soft sponge; stand in a warm place to rise. If wanted for breakfast, this part must be mixed at noon the day before. At night add one cupful of molasses, one teaspoonful of soda, one cupful of currants, one-half teaspoonful of cinnamon, nutmeg and a dash

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Size 3 1/4 x 5 1/2 inches; weight four and one-half ounces.

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causing the bag to burst and scald the patient.

The WELKOM WARMER is made of metal, and is heated within one minute by the lighting and insertion of a paper tube containing a *hazelleless, smokeless and odorless* fuel generating a heat of uniform temperature which lasts two hours at a cost of less than one cent. It is curved to fit any portion of the body and when in use is placed in a bag to modify the heat and held in place by means of a belt allowing the wearer to move about at will.

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If 100 lbs. is too much for you club with your neighbors. Write us, and enclose P. O. or Express Order. Send for Cook Book, "Many Ways of Cooking Rice." Address,

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108 C St., BINGHAMTON, N. Y.

"The Hundred Point Man"

By Elbert T. Hubbard

The other day I wrote to a banker friend, inquiring as to the responsibility of a certain person. The answer came back thus: "He is a Hundred Point man in everything and anything he undertakes."

I read the telegram, and then pinned it up over my desk, where I could see it. That night it sort of stuck in my memory. I dreamed of it.

The next day I showed the message to a fellow I know pretty well, and said, "I'd rather have that said of me than to be called a great this or that."

Oliver Wendell Holmes has left on record the statement that you could not throw a stone on Boston Common without caroming on three poets, two essayists and a playwright.

Hundred-Point men are not so plentiful.

A Hundred-Point man is one who is true to every trust; who keeps his word; who is loyal to the firm that employs him; who does not listen for insults nor look for slights; who carries a civil tongue in his head; who is polite to strangers, without being "fresh;" who is considerate toward servants; who is moderate in his eating and drinking; who is willing to earn; who is cautious and yet courageous.

Hundred-Point men may vary much in ability, but this is always true—they are safe men to deal with, whether drivers of drays, motormen, clerks or cashiers, engineers or presidents of railroads.

Paranoiacs are people who are suffering from fatty enlargement of the ego.

They want the best seats in the Synagogues; they demand bouquets, compliments, obeisance, and, in order to see what the papers will say next morning, they sometimes obligingly commit suicide.

The paranoiac is the antithesis of the Hundred-Point man. The paranoiac imagines he is being wronged, and that some one has it in for him, and that the world is down on him. He is given to that which is strange, peculiar, uncertain, eccentric and erratic.

The Hundred-Point man may look just like all other men, or dress like them, or talk like them, but what he does is true to his own nature. He is himself.

He is more interested in doing his work than in what other people are saying about it.

He does not consider the gallery. He acts his thoughts and thinks little of the act.

I never knew a Hundred-Point man who was not one brought up from early youth to make himself useful and to economize in the matter of time and money.

Necessity is ballast. The paranoiac, almost without exception, is one who has been made exempt from work.

He has been petted, waited upon, coddled, cared for, laughed at and chuckled to.

The excellence of the old fashioned big family was that no child got an undue amount of attention.

The antique idea that the child must work for his parents until the day he

was twenty-one was a deal better for the youth than to let him get it into his head that his parents must work for him.

Nature intended that we should all be poor—that we should earn our bread every day before we eat it.

When you find the Hundred-Point man you will find one who lives like a person in moderate circumstances, no matter what his finances are.

Every man who thinks he has the world by the tail, and is about to snap its demmition head off for the delectation of mankind, is unsafe, no matter how great his genius in the line of specialties.

The Hundred-Point man looks after just one individual, and that is the man under his own hat. He is the one who does not spend money until he earns it; who pays his way; who knows that nothing is ever given for nothing; who keeps his digits off other people's property.

When he does not know what to say, he says nothing, and when he does not know what to do, does not do it.

We should mark on moral qualities not merely mental attainments or proficiency, because in the race of life, only moral qualities count. We should rate on judgment, application and intent.

Men, by habit and nature, who are untrue to a trust, are dangerous just in proportion as they are clever.

I would like to see a university devoted to turning out safe men, instead of merely clever ones.

How would it do for a college to give one degree, and only one, to

those who are worthy—the degree of H. P.?

Would it not be worth striving for, to have a college president say of you, over his own signature: "He's a Hundred-Point man in everything and anything he undertakes."

BEAUTIFY THE SCHOOL GROUNDS.

A great deal of talk has been indulged in about the beautifying of the farm, but very little has been said about improving the school appearances. It is in these grounds that the younger generation spend most of their time, and it is up to the farmers to see that they are kept in the best condition. In many cases the buildings and the surroundings are a little better than a pasture field and a work shop.

If these places were kept in good shape and pleasing to look at, would it not cultivate an eye for beauty that would sooner or later end in beautification of the arms? This is the place where the characters of the future men and women of the land are being formed, and where impressions are made that are lasting. If these impressions are not the best it will be hard for the mind to get rid of them a few years later.

Why should not each pupil have a small plot of ground where he could grow flowers and other plants and thus learn for himself the true way of tilling the soil? This is one of the best and most effective ways of directing the attention of the boys and girls

to farm life. Why not start a campaign that will end in the improvement of school life and surroundings? Let us make the impressions gained at school so strong and so pleasant that in after life the pupils will so beautify their places that the country will be all the prettier for their having been at the school.

A beginning has been made, here and there, but much remains to be done, and could be done without much trouble or expense. The chief difficulty would be to have the ground and flower beds taken care of over the summer holidays, but even that, too, could be economically arranged for.

"SWINE."

By Prof. Wm. Dietrich, Chief in Swine Husbandry at the Illinois Experiment Station.

A thoroughly up-to-date, practical book, 300 pages, fully illustrated. All breeds are historically considered and their commercial merits discussed. All breeding problems and practices are subjected to an edifying analysis, with applicable deductions. Economical pork production is the author's central thought, and in working that subject into a practical system he has incorporated a mass of new and original data.

Chapters on feeds and feeding form a large part of the book, and the new information developed in these searching studies represents the most thorough and extended experimental swine work ever undertaken. The management of breeding herds, feeding for market, house plans and diseases are adequately treated.

Very readably printed on high-grade paper and strongly bound, the physical make-up of the volume is in consonance with the high character of its contents. For breeders, feeders, farmers and students it is the best swine book ever published.

\$3.50 Recipe Cures Weak Kidneys, Free

Relieves Urinary and Kidney Troubles. Backache, Straining, Swelling, Etc. Stops Pain in the Bladder, Kidneys and Back.

Wouldn't it be nice within a week or so to begin to say goodbye forever to the scalding, dribbling, straining, or too frequent passage of urine; the forehead and the back-of-the-head aches; the stitches and pains in the back; the growing muscle weakness; spots before the eyes; yellow skin; sluggish bowels; swollen eyelids or ankles; leg cramps; unnatural short breath; sleeplessness and the dependency?

I have a recipe for these troubles that you can depend on, and if you want to make a quick recovery, you ought to write and get a copy of it. Many a doctor would charge you \$3.50 just for writing this prescription, but you get it entirely free. Just drop a line like this: Dr. A. E. Robinson, R. 1449 Luck Building, Detroit, Mich., and I will send it by return mail in a plain envelope. As you will see when you get it, this recipe contains only pure, harmless remedies, but it has great healing and pain-conquering power.

It will quickly show its power once you use it, so I think you had better see what it is without delay. I will send you a copy free—you can use it and cure yourself at home.

\$5.50 Value for Only \$1.25

THE SECRET OF SUCCESSFUL POULTRY RAISING FOUND AT LAST.

It is now possible to have a sure cash income and profit of \$3500.00 from 1000 hens in 5 months, and a minimum cost for help, feed and other necessities, making a profit of more than \$7.00 per hen, per year. It is a demonstrated success. This has been easily done and you can do it. All poultry losses are stopped and profits assured by this wonderful and revolutionary system of Poultry Culture.

READ WHAT THE BRIGGS SYSTEM WILL DO FOR YOU. The Briggs System can be applied to any poultry plant large or small with equal success. Equally as valuable to the beginner as to the experienced poultry raiser. It contains poultry secrets never before published.

SUCCESS WITH POULTRY ABSOLUTELY GUARANTEED BY THE USE OF BRIGGS SYSTEM AND SECRETS.

Feed for growing chicks and making eggs at 15c per bushel explained by the Briggs System. No machinery; no cooking.

95 Per Cent. OF ALL CHICKS HATCHED CAN BE RAISED 2000 layers and 3000 chicks can be cared for without help by one person and still have time for other work.

\$25.00 saved on every hundred chicks raised to maturity by this wonderful Briggs System.

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"PROFITS IN POULTRY KEEPING SOLVED." This great book by Edgar Briggs tells how to increase your present profits or start a profitable and easy occupation. Failures unknown when the Briggs System is used. It meets every condition and covers every part of the business. Keeps hens in the pink of condition and produces more eggs than any other System; molts hens early and fowls are rarely sick when this wonderful System is followed.

THE SECRET OF TURKEY RAISING IS ALSO BARED. This book has never been sold for less than \$5.00 per copy, and thousands covering several editions are being followed by an equal number of successful poultry raisers.

WE HAVE PURCHASED THE SOLE RIGHTS OF PUBLICATION FROM THE AUTHOR, MR. BRIGGS, and have just reduced the price from \$5.00 to \$1.25 per copy, including one year's subscription to "Poultry Success," regular price 50 cents, so under the great offer you get the Briggs System book for only 75 cents. We have also just taken off the press "Briggs Secrets in Poultry Culture," containing most valuable and obtainable results. These secrets are alone worth the price of the book, but under our great offer you get them FREE.

SPECIAL OFFER. While the present edition of the Briggs System and Secret Books last, if you will remit us \$1.25, we will send immediately a copy of Briggs Wonderful System Book, Vol. 2: Profits in Poultry Culture Solved, also a set of Briggs "Secrets in Poultry Culture" and include also Poultry Success one year. Even if you already have a copy of "Profits in Poultry Keeping Solved," you are losing money every day by not having the supplemental publication "Secrets in Poultry Culture." Poultry Success is admittedly the world's leading and best Poultry Journal, 20 years old, 86 to 164 pages, beautifully illustrated and printed. Most competent and experienced writers in the country, 50 cents a year. It is the 20th Century Poultry Magazine. Sample and Circulars Free. Address

Hosterman Publishing Co., Briggs Desk 79, Springfield, Ohio.

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"POULTRY HOUSES AND FIXTURES."

The Reliable Poultry Journal Pub. Co. has also just issued the seventh edition of their popular book, "Poultry Houses and Fixtures." This book has just been revised and brought right up to date.

The most valuable points covered are as follows: building poultry houses of all kinds, i. e., closed front houses, scratching shed houses, open-front or fresh-air houses, giving details of both the popular "Woods" and "Tolman" open-front houses; portable houses, also all kinds of interior and exterior fixtures.

The plans for each style house, together with the approximate cost of each house, are so explicit that any amateur who can handle a hammer and saw will understand just how much lumber to order for each house and how to build or superintend its construction.

This book contains over 150 illustrations and is unquestionably the most instructive and comprehensive

work on the construction of poultry houses and fixtures that has ever been compiled to date. Every house and fixture described in this book is in use on the plant of a successful poultryman.

The price of Poultry Houses and Fixtures is 50 cents per copy, postpaid.

SAVE HALF THE LABOR

in sawing wood. You can do this and at the same time, cut more wood in a given time than in any other way by using



Table is mounted on grooved rolls, moves easily—cut of saw is down instead of against the operator as in old style machines. Must be seen to be appreciated. We also manufacture Drag Saws, Saw and Shingle Mills.

Send for prices and full information Ireland Machine & Foundry Co., 15 State St., Norwich, N. Y.

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A new modernly constructed brick and stone hotel, offering the highest class accommodations at very reasonable rates.

Two large sample rooms on office floor for the use of commercial travelers who desire to display their samples.

Situated at 149 South Carolina Avenue.

Two squares from Pennsylvania Station.

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Only Medium Price Hotel left in New York

Special attention given to Ladies unescorted

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Our Table is the foundation of our enormous business.

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The Only New York Hotel Featuring

AMERICAN PLAN

Excellent Food Good Service

BLOODED STOCK for March.



ADVOCATES DOUBLE DISKING.

While Congress is struggling with the question of conservation of the national resources and the extension of the system of irrigation to the semi-arid regions of the West, the western farmers are grappling with the problem very effectively and in an entirely different way.

Out in Montana, Idaho, Colorado, Wyoming and other States is much land which, owing to insufficient rainfall, was classed for a long time with the non-producing land. It was thought that it would not raise enough to justify a farmer's time and labor. That, in most cases, such land can be made, not only sufficiently productive, but highly profitable, by the application of scientific methods, is now thoroughly established.

The methods employed to fertilize, to properly treat and cultivate the soil, and to conserve and effectively use the rainfall that comes, is called "dry farming." The most important factor in "dry farming" is probably in using the best tools for preparing the soil. The experiment stations of these western States have been largely responsible for the bringing to a scientific basis the system of "dry farming." And they have all urged that the land be double disked. This can be done in two ways, by using the old style single disk plow and going over the land a second time; or by the more up-to-date way, as shown in the illustration, of using a "Cutaway" Double Action Harrow, which accomplishes all in one time over. They have won a very wide reputation among these farmers who find in them the ideal tool for their kind of work. Mr. M. J. McGlynn, of Sidney, Montana, a prosperous farmer, wrote the Cutaway Harrow Co., Higganum, Conn., the makers of these famous tools, the following letter, which shows how useful a "Cutaway" Double Action Harrow is to them.

Sidney, Mont., Dec. 21, 1909.
Cutaway Harrow Co., Higganum Ct.:

Gentlemen—Enclosed you will find a photo of one of your A-6 D. A. Harrows at work on tough, heavy Buffalo grass-sod breaking, preparatory to sowing flax—photo taken June 24, '09.

I disked seventy-five acres for crop last spring, using four bronchos, and they handled it easily. It is a great improvement, even on double disking with the old style single discs, and I consider it the most valuable piece of machinery I have.

I send you this photo, these statements, and a reference to pages 60 and 61 of Montana's Farmers' Bulletin No.

1 (in which your machine is mentioned), to lend force to the suggestions I wish to make. You have, no doubt, heard of the agitation or movement known as "dry farming." I am a "dry farmer." I consider this "dry farming" movement a great chance for you, and a world of good for the farmers. The bulletin referred to advises the use of your machine, and all Lecturers on this subject advocate double disking.—J. A. McGlynn.

Full particulars regarding the Cutaway Tools, and their many uses, can be had by writing the Cutaway Harrow Co., Higganum, Conn., mentioning this paper.

A MANURE SPREADER BY ALL MEANS.

The manure spreader is one of the best and most profitable of modern implements for the farmer to buy. By its use the farm can be kept in good condition in all places and at all times. It spreads the manure evenly and as thick or thin as the operator wills. If the machine is set to spread thinly the manure would be made to cover a greater amount of ground, and it would not be so long a time before the whole farm were treated and the field could be given a second application, as it would under the old system where heavier applications were given.

Then look at the labor that is saved! When the load is on the farmer does practically nothing but sit and drive till he gets back to the yard with his load off.

Another point is that by pulverizing the manure more than is possible with a fork the fertilizer is available more readily and evenly for the crop. No matter how carefully the spreading is done with a fork, the crop looks patchy, and it is really the second year before full benefit is received.

USED TWENTY YEARS. WORKS WONDERS.

3134 Woodbine Ave., Cleveland, O., 9-15-'09.

DR. B. J. KENDALL CO.

Dear Sirs:—I have used your liniment and Blisters for twenty years and it has worked wonders both on man and beast. It is always in my barn. I can testify to a cure that your liniment performed on my right elbow, which the doctors called a bony growth. I applied the Spavin Cure four times each day and it cured it. It also worked wonders on a mare of mine that contracted a Bone Spavin. Kindly send me your Treatise on the Horse.

Very truly yours, J. A. Smith.

BLOODED STOCK for March.

TEST YOUR SEED CORN.

All through the corn States farmers are seriously alarmed at the small percentage of fertile grain from last year's corn crop, and are doubly careful in testing out all seed for this season.

Comparatively little attention is given, here in the East, to testing seed corn. If an ear looks good it's selected, and if half of it fails to grow the hills are replanted. There are many who pay little attention even to picking out the ears.

Those who select the ears have good yields, and those who also test their seed, do still better. Selecting ears is little trouble. It should be done before the crop is cut and while husking, because the stalk as well as the ear should be considered.

Testing the fertility of the ear selected is not very much more trouble, and certainly profitable.

A new business has sprung up in the West, making and selling testers, but one can make a tester and here is how the Missouri Agricultural College recommends that the work be done:

"Make a box about three feet square and four inches deep. Fill to within one inch of the top with sand or saw dust and moisten thoroughly, not saturate. Cut a piece of muslin to fit the box, divide in squares two inches each way by ruling with a yard stick and lead pencil. Number each square, then number ears to correspond. Take ten kernels from various parts of each ear and place in the square with the proper number, place another square of well-moistened muslin over the corn, then throw several thicknesses of muslin or old sacks over the top to prevent drying out too quickly. Set the box under the stove, where there is a constant temperature of 75 to 80 degrees. Moisten the top muslin well every other day and replace cover. Save for planting only those ears which had at least eight kernels to produce good, thrifty plants, in five to seven days. In two days' actual time one man can test enough corn to plant fifty acres and by getting germinable seed can frequently increase his crop 5 to 10 per cent."

HORSE ACTION.

(Continued from Page 7)

The forward movement of the elbow should carry the forearm forward in a direct line, a line of motion which should be maintained throughout the backward movement as well. The importance of this will be realized when it is borne in mind that there are few muscles in the shoulder or limb of the horse to control motion in any other direction, and when muscles whose purpose is to move the limb in its direct movements are compelled to accomplish deviations, through all formations of joints, they must do so at a great disadvantage of leverage. The expenditure of force required to carry the weight of the limb out of a direct line and back again in a short space of time is very great, and the effective factor is cut down accordingly.

The same line should be followed by the lower limb and the foot. That this should be done, perfect alignment of knee joint, perfect co-ordination with the joints of the elbow, and resultant movement of the forearm is an absolute necessity. The import-



With progressive farmers it is no longer a question of whether or not to buy a manure spreader. Good spreaders have already proved their value.

The real question is—which one will net you the most profit?

The I H C line answers that question. Among the many styles and sizes, you will find one that just meets your needs.

I H C Manure Spreaders

embody all that is best in manure spreader construction—all that makes for greatest manure profits. They have strength in abundance to withstand the hardest usage; they are simple, sure and steady in operation; they work perfectly with fertilizer in any condition; they are exceedingly light in draft.

I H C manure spreaders are made in three styles; each style is made in three sizes, ranging from 30 to 70 bushels capacity. Corn King and Kamp 20th Century spreaders are of the return apron type; Clover Leaf manure spreaders have endless aprons. Two styles of feed are furnished—either ratchet or double pawl worm gear. There is an I H C to suit each requirement—large sizes for large operations, medium sizes for the average farmer, small sizes for orchards, vineyards—for every condition. I H C spreaders have lime hoods to spread commercial fertilizers; drilling attachments to distribute manure in rows. Whatever I H C spreader you buy will pulverize and spread manure or commercial fertilizer perfectly. You will find it durable, and it will net you big dividends on your investment.

Manure is the cheapest and best fertilizer but it must be handled and spread right or most of its value is wasted. You must have an I H C manure spreader to get 100 per cent value out of the manure. I H C spreaders are doubling the crops of others. The one that suits your needs will do it for you.

See the local International agent to get our catalogue and full information. Or, if you prefer, write us for further particulars.

INTERNATIONAL HARVESTER COMPANY OF AMERICA



ance of a broad knee, giving wide bearing surface, compelling the lower limb to travel true to the forces applied to in rapid motion can be appreciated.

(To be continued)

CURRENT PROGRESS IN SURGERY.

Dr. Howard Lilienthal, attending surgeon to Mount Sinai and Bellevue hospitals, New York, contributes to the April Century, a paper on current progress in surgery. This, it is announced, will be the first of a group of similar papers dealing with the work of the world in many fields of endeavor and achievement.

OUR NATIONAL GAME.

Mr. Walter Camp writes spiritedly of base ball, as "The American National Game," in the April Century; and no man knows more about professional college base-ball in the making or has higher authority to back his statements. E. W. Kemble has made humorous character pictures for the article.

CACTI FREE

10 specimens free with each \$25 order. Dealers take notice—order at once. MRS. S. I. PATTISON, Wholesale Collector Cacti, Mesilla Park, New Mexico.



No Danger From Fire When You Build With Concrete

A fire can wipe out in an hour what it may have taken a life-time to build.

Did you ever drop a lighted lantern in the barn or the wagon shed? You know how quickly the flames begin to dance about the floor and reach the wall. Every farmer has had this experience, and many have been sorry over the consequences.

You will never worry about fires if your barn or shed is built of concrete made with

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ATLAS is the best cement manufactured. It is made of genuine Portland Cement Rock. It contains no furnace slag.

ATLAS has the greatest sale because of its uniform quality and absolute purity. There is only one quality of ATLAS manufactured—the best that can be made and the same for everybody.

The United States Government ordered 4,500,000 barrels of ATLAS for the Panama Canal. You get the same quality as the Government if you order only one bag.

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"Concrete Construction About the Home and on the Farm" illustrates hundreds of different ways of using concrete. It will show you how to make and place the concrete mixture in the best and most economical way. It gives complete instructions and illustrates them with photographs, diagrams and plans. Send for the book now.

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Daily Productive capacity over 50,000 barrels—
the largest in the world



None Just as Good

SEED POTATOES AND LATE BLIGHT.

In a publication of the New York Department of Agriculture, Mr. F. C. Stewart of the New York Agricultural Experiment Station states in part as follows: "Since there was no late blight anywhere in the state in 1909 and the New York potato crop is absolutely free from late blight rot, we are assured of a blight-free crop in 1910, no matter what the weather conditions may be, provided we plant only New York-grown seed. The man who plants Maine-grown seed next year is to be regarded as a menace to the potato crop of his neighbor."

The Maine Experiment Station takes exception to the foregoing and reports that Mr. Stewart is entirely wrong in his conclusions; that if the disease could be stamped out so easily, Maine growers would willingly give up the use of their potatoes for seed to accomplish this result. The Maine station authorities say that so far as known, sound tubers from fields which have shown late blight and rot are no more dangerous as carriers of the disease than tubers from fields upon which the disease apparently was not present. In those parts of the country where weather conditions are favorable to the spread and propagation of late blight, thorough, efficient spraying with Bordeaux mixture is the only known preventive of the disease. Given that,

seed from any locality that has vigorous stock may be used.

The Maine station has a circular that explains how to reduce potato disease which may be conveyed by seed tubers, and the consequent loss to a minimum. It will be sent free to any resident of Maine or to anyone who contemplates using Maine seed potatoes. Address Agricultural Experiment Station, Orono, Maine.

ROSE SOCIETY'S SPRING EXHIBITION.

Nearly 10,000 Specimens Shown.

More than 10,000 people visited the annual spring exhibition of the American Rose Society and the Horticultural Society of New York, which lasted three days, at the American Museum of Natural History. Nearly 10,000 specimens of roses were exhibited, including many rare examples of American Beauties, Killarneys and Mme. Chateaus.

About \$1,000 in prizes was awarded. H. C. Stienhoff, of West Hoboken, captured nine prizes and took the first prize of \$100 for the best display of hardy roses in bloom.

The J. Rochrs Company, of Rutherford, N. J., took four prizes; Gude Bros., of Washington, D. C., were awarded the first prize for the best American Beauty, and the F. R. Pier-son Company, of Tarrytown, N. Y., received the first prize of \$25 for the best display of White Killarneys.

Benjamin Dorrance, of Dorrance-ton, Pa., won the challenge prize of a silver medal for the largest and best display of cut roses.

The United States Cut Flower Company won the Nash cup, valued at \$50, for the best six roses shown, American Beauty excepted.

Several prizes were taken by Adolph Farenwald, of Pennsylvania, who took the Burnham gold medal for the best vase of cut blooms, and the Waban Rose Conservatories won the Toronto Horticultural Society silver medal for the most artistically arranged vase of roses on exhibition.

The bronze medal in this class went to William Geiger, of Oak Lane, Pa.

LAMBS RIVAL HOGS IN PRICE.

Two Carloads Bring 10 Cents a Pound in the Chicago Yards.

Colorado fed Mexican lambs, with the wool on, not to be outdone by mere hogs, set a new high mark for themselves at the stockyards to-day when two loads were sold for 10 cents a pound. A load of clipped lambs from the same part of the country sold for 9 cents. Shorn wethers brought 7½ cents. The price for wool lambs is said by old men at the yards to be the best ever paid here. Last week's top price was \$9.65.

The hog market opened weak to-day with 35,000 of them in, but in spite of the efforts to keep the price down they rose to Saturday's high mark of \$11.

THE BLOODED DAIRYMAN AND POULTRY RAISER



APRIL.

When April winds
Grew soft, the maple burst into a flush
Of scarlet flowers. The tulip tree, high up,
Opened, in airs of June, her multitude
Of golden chalices to humming birds
And silken winged insects of the sky.

—Bryant.

Volume XVI

Number II

PUBLISHED MONTHLY AT
OXFORD, PENNSYLVANIA
Twenty Five Cents a Year One Dollar for Five Years

April
1910

Blooded Stock, The Eastern Farmer, Dairyman and Poultry Raiser April, 1910

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Printed on the first day of each month by L. H. Hitchler.
Entered at the Post-office at Oxford, Pa., as Second-Class Mail Matter, May 27, 1899.

OUR ADVERTISERS—We believe that every advertisement in this paper is backed by a responsible person. But to make doubly sure we will make good any loss to paid subscribers sustained by trusting any deliberate swindler advertising in our columns, and any such swindler will be publicly exposed. We protect subscribers against rogues, but we do not guarantee to adjust trifling differences between subscribers and honest, responsible advertisers. Neither will we be responsible for the debts of honest bankrupts sanctioned by the courts. Notice of the complaint must be sent us within one month of the time of the transaction and you must have mentioned *Blooded Stock* when writing the advertiser.

EDITORIAL DEPARTMENT—The editors are always glad to examine manuscripts suitable for publication in this magazine. Photographers are invited to submit photographs of subjects pertaining to any phase of farm life. Stamps should accompany both manuscripts and photographs to insure their return, if they are not accepted.

OF INTEREST TO YOU

WHAT BEARING HAS COLD STORAGE ON HIGH PRICES?

Much has been said and the daily papers have something in almost every issue about cold storage causing artificially high prices. As a matter of fact cold storage tends to level or make uniformly low prices on perishable goods throughout the year. It is admitted that there are at times combinations for the control of prices, but such control is temporary at most and can have no important influence on the general trend of prices to the consumer. Cold storage has no connection and is not responsible for such combination.

Legislation tending to curtail or interfere with the usefulness of cold storage as at present applied to the conservation or preservation of perishable food products, will, instead of benefiting the public, be harmful in an extreme degree. We are quite familiar with all the details of the production, manufacture, distribution and consumption of the various food products commonly held for a period in cold storage. There is absolutely no foundation for the reports current, that cold storage enables meat packers and produce dealers to regulate the market. The cold storage houses of the country are not merely a few large plants in the big cities, but the larger capacity is divided among comparatively small plants in the producing districts and operated by small companies or individuals with small capital. This fact in itself shows that there is no possibility of a control of the marketing of goods from cold storage. The production of perishable food products covers such a wide extent of territory and is handled in such a small way by small dealers that control of prices is out of the question. There is nothing to prevent anyone with a few hundred dollars from putting in a small cold storage plant, and the market for produce is so general that one combination or

concern could not possibly have a monopoly of same.

The present high cost of living is the result of causes far more remote than anything which has been suggested in connection with the cold storage proposition or the control of markets through combination. High prices are the direct result of scant production as compared with consumption. There are too few people producing and too many people consuming. Also, the increased available supply of gold, our money basis, has an important influence. The present high prices of meat, as an example, are caused by the disappearance of the free Western ranges for cattle. Meat in future will be produced by the comparatively small farmer, and it is only a question of a short time when we will not look to the West for our supply of beef but to the home producer.

There is absolutely nothing to prevent anyone who feels that cold storage is a monopoly and an easy way of making money to either build a plant of his own or store goods in plants already built. Practically every plant with which I am familiar, and these number by the hundreds, are glad to take goods on storage at reasonable rates. Further than this, they will ordinarily advance on warehouse receipt collateral, from one-half to three-quarters actual cost of goods in storage. There can be no better evidence and argument to prove that no combination can control the perishable goods from the cold storage plants of the country.

The most influential people in the business are interested in reporting monthly, stocks of goods in cold storage, and such reports may be had with a fair degree of accuracy. This means that prices of perishable goods are at all times dependent on the law of supply and demand. When the available supply is short, prices are necessarily high and when the available supply is large prices are necessarily low. It is not expected, however, that the available supply of per-

ishable goods is likely to be in excess for some years to come. There are altogether too many consumers in the cities and towns and too few producers in the country.

Summed up in a few words, it may be stated that the present cause of high prices for perishable food products is owing to short supply compared with consumptive demand and lowered value of money standard through large production of gold—Madison Cooper, Rochester, N. Y.

Mr. Cooper is one of our regular subscribers and advertisers, and we are glad to have his views on the Cold Storage vs. High Prices controversy.

DR. WILEY SAYS COLD STORAGE IMPROVES SOME ARTICLES OF FOOD AND DRINK.

Dr. Wiley informed the Senate committee investigating food prices that some articles of food in his opinion are improved by being kept in cold storage, and as examples cited cheese, hams and bacon, wines, liquors and beer. Such articles as milk, eggs and vegetables deteriorate in storage, said the chief chemist. The doctor approves the use of canned goods, but declares that they are likely to become unwholesome if kept in storage more than one season. Nine months he fixes as the limit of time that most food articles can be safely stored before deteriorating.

BE JUST BEFORE GENEROUS.

Senator Curtis is entitled to credit for opposing the granting of a pension of \$10,000 per year to ex-President Roosevelt.

Just at this time the popularity of Roosevelt is so great that there are people who would be willing to give him any sort of a pension. However, there is no reason why he should be granted a pension. He is in perfect

BLOODED STOCK for April.

health. He is capable just now, perhaps, of commanding a higher salary for his services, or rather higher compensation for his work, than any other man in the United States. Papers and magazines are ready to print anything he may write and pay for the same, good, bad and indifferent, at \$5 or \$6 per line. He gets that, not because the stuff is really worth the money, but because Roosevelt wrote it.

Why should he, under these circumstances, be granted a pension of \$10,000 per annum, while congress refuses to grant to old soldiers who really need the money, pensions sufficient to keep them in the plainest way for the rest of their lives?—The Farmers' Mail & Breeze, Kansas.

A PENNSYLVANIA STATE MUSEUM.

The establishment of a first-class State Museum has been a long-felt want. Much has already been accomplished, although the work is in its infancy, and with the hearty co-operation received from its many friends, it is laying a foundation invaluable for future years.

It is hoped that the near future will see a State Museum Building suitable for its needs, where each Division can be properly exhibited, and exhibits scientifically arranged. The Divisions to be as follows:

Division of Zoology—already established—showing the fauna of the State, with many valuable features for the agriculturist, where information can be obtained of the birds, insects, and animals of the locality, that are helpful or destructive to crops.

Division of Geology—where all the mineral resources of the State can be viewed and studied, including mineralogy, paleontology, and industrial geology. Each county in the State should be represented by its respective minerals, stating where obtained and their uses. Fossils from the Pennsylvania coal fields, and a good oil exhibit are already in place.

Division of Anthropology—portraying the aboriginal inhabitants of the State, their manner of living, their history, arts, crafts, etc., as well as the first settlers, and the various nationalities at present within its borders. Also historical relics of war and peace, in which the State is very rich. The flag room, with its relics, has long been established, and a small collection of pottery and implements is now exhibited. Many good collections are scattered throughout the State and should find a home in the Museum.

Division of Botany—with specimens helpful in learning the different species of trees, their uses, and their woods; the care of the forest preserves, as well as the flowers and plants used for beautifying or for their chemical and medicinal qualities.

Aside from these various divisions, the building should include a large auditorium, with committee rooms, where all kinds of scientific, historical, agricultural, and art societies could meet, having access to the different departments of the Museum. The conventions meeting in Harrisburg are many, and since the persons visiting the State Capitol number thousands, annually, no place would reveal more fully or effectively to the visitor, whether pleasure-seeker, stu-

dent, or scientist, the resources of the State, and its progress, than a centralization at the State Museum.—Alicia M. Zierden, Curator, Division of Education.

THE TREND IS EASTWARD NOW.

The man who invests his earnings in eastern, middle and southern lands is not speculating. The call to the west was answered long ago, and the entire world has been enriched because of it. But the western limits have been reached. The west has been built up; now a new survey is on the programme. The entire body of land has to be gone over again, farm by farm. When this is done the east and south will not suffer from the examination. They will be benefited, because the advantages they possess will be handled in a general way commensurate with their importance and superior worth.

Tucked away in the old lands of the east and south are rich fortunes still to be had. In cities big and little are broad markets, to which may go immense crops at remunerative prices. On most farms are good buildings and improvements. In most communities are all the treasures of refined living and broad culture. To go into these sections, rich in all of these things, is to choose wisely, with no probability of decline or loss.

It is not in line of speculation, then, when a farmer, young or old, enters into these parts. The turn of the tide is back to the old settled communities. In years to come reasonable land values will be restored; and with diversification and adaptation of crops and business to soil and climate and market, the eastern and southern lands will reclaim their lost prestige, and the new agriculture will claim the best blood and satisfy the best minds of the nation.

This is a real movement, not an imaginary one, and into almost every county of the East, some westerner has already bought and moved.

With them will be introduced, as a matter of course, western methods of farming and selling, and while the majority of these ideas will have, of necessity, to be accommodated to eastern conditions, the result will be of great benefit to neighbors who have seen only home methods.

Let them come back and welcome.

THE NEW YORK STOCK EXCHANGE.

An Idea of "Wall Street."

Comparatively few of us have a clear idea of what the New York Stock Exchange, or, as it is more frequently called, "Wall Street," really is, and we are apt to lay up against it all the financial difficulties we have to contend with. The following brief article appeared in a conservative and well informed weekly journal and is about the best thing of the kind we have read. It's worth your while to read it, too, so we publish it in full.

Beyond all question, the New York Stock Exchange is the most important securities market in the United States. With equal truth it may be said to be the greatest institution of its kind in the world. Its annual transactions in stocks and bonds run into such huge figures that the mind

cannot formulate a realistic conception of them.

Membership in the Exchange is limited to 1,100, each seat now being worth between \$75,000 and \$95,000.

In case of a vacancy occurring through death or otherwise, the consent of the Governing Committee must be obtained before a membership can be transferred. This is because every precaution is taken to exclude undesirable members.

Before a company can obtain a listing of its securities upon the Exchange, it must file an application containing complete details as to its property, earnings, etc. It is discretionary with the Governing Committee as to whether or not the securities are listed. After listing, the Committee has the power to remove them at its discretion. It is the avowed object of the Exchange to afford the fullest protection to institutions and individuals buying or selling securities through a member of the Exchange. The commission rate charged by members is 1-8 of 1 per cent., based upon the par value of securities.

A listed bond, if at all active on the Exchange, is assured of a ready market. It is also excellent collateral with banks. At the same time there are plenty of sound and readily marketable issues which are not listed. The importance of listing is frequently overestimated.

Even with listed securities a large volume of transactions in them takes place outside the Exchange.

While the majority of the investment banking firms in New York are members of the Exchange, it is not at all essential to their business that they should be, and some of the most reputable firms are not members. Such firms, when necessary, have their Exchange orders executed through an Exchange member. But the volume of business "over the counter" in most of the listed securities is so large, and their organizations are so perfect, that more often than not they are able to execute the order outside the Exchange to equal or better advantage than on the Exchange. This, of course, applies to bonds and not to stocks, except unlisted stocks.

The Stock Exchange is an economic necessity to the country, because even speculation has its legitimate functions. That the privileges of the Exchange are at times abused by speculative interests is no argument why the Exchange should be abolished. It simply serves to point out the imperative necessity of the Governing Committee exercising every precaution in the discharge of its duties. But all transactions on the Exchange, contrary to a common belief, are not speculative. On the contrary, purchases and sales for pure investment account, during the year, largely overlap the speculative transactions. Practically all bond transactions are for investment account.

GOV. STUART'S ARBOR DAY PROCLAMATION.

"The conservation of our Natural resources has become a question of National importance. Among these resources trees and forests hold a conspicuous place. It is the common

(Continued on page 20)

Twenty-five Ayrshire Cows in the Home Test

The following is a summary of the yield in milk and butter from five herds of five cows each, that were in the Home Dairy Test for the year ending March 31, 1909.

This test is for a year's work of each herd, all the tests beginning April 1st and running for three hundred and sixty-five days, and is a good illustration of the business ability of 25 cows for a year's work in the dairy.

One herd of five cows owned by John R. Valentine, Bryn Mawr, Pa., gave for the year, 57811 lbs. of milk and 2688 lbs. of butter, by Experiment Station method of figuring.

Another herd of five cows owned by George H. McFadden, Bryn Mawr, Pa., gave for the year, 53559 lbs. of milk and 2620 lbs. of butter.

Herd of five owned by Penshurst Farm, Narberth, Pa., gave for the year, 54637 lbs. of milk and 2466 lbs. of butter.

The herd of five cows owned by S. S. Karr & Sons, Almond, N. Y., gave 49705 lbs. of milk and 2385 lbs. of butter.

Five cows owned by J. W. Clise, Seattle, Wash., gave for the year, 50161 lbs. of milk and 2350 lbs. of butter.

The twenty-five cows averaged 10635 lbs. of milk for the year, and 500 lbs. of butter.

The following are some of the official records made by Ayrshire cows for milk and butter for 365 consecutive days.

Bessie of Rosemont 17904, Champion four year old, gave 14102 lbs. of milk and 675 lbs. of butter. Property of George H. McFadden, Bryn Mawr, Pa.

Rena Ross (Champion Ayrshire Cow,) 14539, gave 15072 lbs. of milk and 751 lbs. of butter. She is owned by John R. Valentine, Bryn Mawr, Pa., of whom we have written in Blooded Stock.

Friskey of Bonshaw 17018, gave 12445 lbs. of milk and 683 lbs. of butter. Owned by George H. McFadden, Bryn Mawr, Pa.

Auchenbrack Sweet Pea 2d 21625, gave 13097 lbs. of milk and 622 lbs. of butter. She is also owned by Geo. H. McFadden, Bryn Mawr, Pa.

Curfew Bell 21255, (Champion three year old), gave 11181 lbs. of milk and 588 lbs. of butter, John R. Valentine, Bryn Mawr, Pa., owner.

Polly Puss 16296, gave 12632 lbs. of milk and 584 lbs. of butter. She is owned by John R. Valentine, Bryn Mawr, Pa.

Bell Ayer 20180, gave 11934 lbs. of milk and 575 lbs. of butter. Also owned by John R. Valentine, Bryn Mawr, Pa.

Keepsake 15913, gave 12365 lbs. of milk and 548 lbs. of butter. Another of John R. Valentine's, Bryn Mawr, Pa.

Rena Myrtle 9530, gave 12172 lbs. of milk and 546 lbs. of butter. Owned by C. M. Winslow, Brandon, Vt.

Bessie Clyde 17287, gave 12044 lbs. of milk and 536 lbs. of butter. S. S. Karr & Sons, Almond, N. Y., owners.

Denty 9th of Auchenbrack 15577, gave 11757 lbs. of milk and 528 lbs. of butter. Owned by George H. McFadden, Bryn Mawr, Pa.

Cora T. 13772, gave 12392 lbs. of milk and 524 lbs. of butter. Owned by S. S. Karr & Sons, Almond, N. Y.

Finlayston Maggie 3d 19217, gave 10759 lbs. of milk and 513 lbs. of butter.

BLOODED STOCK for April.

ter. Property of George H. McFadden, Bryn Mawr, Pa., (4 year old form.)

Kitty K. 12933, gave 11115 lbs. of milk and 512 lbs. of butter. Owned by John R. Valentine, Bryn Mawr, Pa.

Princess Lily 21702, gave 11771 lbs. of milk and 511 lbs. of butter, and is owned by J. W. Clise, Seattle, Wash.

Brown Eyes of Knockdon 19216, gave 11448 lbs. of milk and 511 lbs. of butter. Owned by George H. McFadden, Bryn Mawr, Pa.

Auchenbrack White Beauty 2d 21687, gave 10494 lbs. of milk and 511 lbs. of butter. She is owned at Penshurst Farm, Narberth, Pa.

Jennie of Sand Hill 19490, gave 10160 lbs. of milk and 510 lbs. of butter. She is owned by S. S. Karr & Sons, Almond, N. Y., (3 year old form.)

Durwood 12680, gave 10701 lbs. of milk and 506 lbs. of butter. Property of E. J. Fletcher, Greenfield, N. H.

Oshawa Lady 2d 18249, gave 11254 lbs. of milk and 503 lbs. of butter. Owned by John R. Valentine, Bryn Mawr, Pa.

Madonna Lass 3d 21850, gave 10467 lbs. of milk and 502 lbs. of butter. She is owned by L. A. Reymann, Wheeling, West Va., (3 year old form.)

Baby Douglas 21849, gave 9652 lbs. of milk and 440 lbs. of butter. Owned by L. A. Reymann, Wheeling, West Va., (Champion 2 year old.)

Acelista 12094, in five consecutive years, gave an official test of 52000 lbs. of milk and 2137 lbs. of butter and dropped five calves. Acelista is owned by C. M. Winslow, Brandon, Vt.

Regularity in Feeding, Milking, etc.

A very important rule in keeping a dairy herd is the question of regularity. A good dairy cow is systematic in her habits and soon becomes accustomed to receiving her feed at certain hours, and being milked at certain hours. This matter of regularity is extremely important. On my farm I make it a point to have the milking periods twelve hours apart, also the feeding periods, and once regular hours are established, we always try to adhere to this hour for that particular work. Cows giving more than sixty pounds of milk a day, we milk three times a day—every eight hours.

Here is our programme for the day's work during the winter months: 4.30 a. m., rise, go to the barn, feed grain. After grain feeding, milking is done, and the milk taken to the separator room. After milking the cows are given water and hay. This takes up the time until about 7.30, when we have breakfast. After breakfast, the barn man puts in his time carding the cows. It is my experience that careful grooming pays well, and some experiments indicate that it will increase the flow of milk eight to ten per cent. About 10 o'clock, on pleasant days, the cows are all turned out into the yard. In these yards we keep feed racks filled with hay or straw, or perhaps corn fodder is scattered for them

to pick over. While the cows are out, the barn is cleaned, or any other work can be done. At 3 p. m. the cows are put in the barn, and at 4.30 we start the same program as followed in the morning—that is to say, feed and milk the cows, water them and lastly, give them hay for the night.

Under ordinary farm conditions we have made it a point to use the ordinary feeds grown on the farm. The man who goes into dairying for all there is in it, will find it worth his while to study well the feed question, and aim to feed at all times as near a balanced ration as possible. This means careful study of analysis of feed, and considerable figuring. For the ordinary farmer, I would suggest oats and barley, mixed half and half, and ground. To two hundred pounds of this mixture, I would add one hundred pounds of grain, and 50 pounds of cornmeal.

In figuring out the amount for each cow, I aim to give one pound of grain for every three pounds of milk in return—that is to say, a cow that gives twenty-four pounds of milk, gets eight pounds of grain per day. In addition, each cow gets two pounds of oil meal, added separately, to each grain ration. Oil meal is excellent feed for promoting the health and vigor of the dairy cow. It contains a high per cent. of protein, and in

addition has a beneficial laxative effect. In feeding it, the farmer wants to start with only a small amount, and work up to about two pounds a day. Sometimes more than this amount can be fed profitably, but for the average cow, I should say that two pounds is about enough. With this grain, I should endeavor to feed clover hay and silage, and roots. Roots or silage add succulence to the ration, and enable us to most closely approximate summer conditions, and giving summer conditions in the winter months is the best inducement for milk yields. Local price for grain and hay must govern in formulating economical rations.

I have found it a very excellent plan to provide both day and night pastures during the summer months, and in my own experience have seen the quantity of milk from a dairy herd jump from sixty gallons per day to eighty gallons per day, just on account of the night pasture. During the hot summer months, when the flies are troublesome, cows will often eat much more at night than they will during the daytime. I therefore believe that it pays.

While our cows are on flush pasture we feed no grain. When feed is high and hay low in price we often let the cows reap the second crop of clover.—A Western Farmer.

BLOODED STOCK for April.

RAISING THE CALF.

I usually let the calf suck about three days. Then I make it a point never to let that calf lose a meal. I start out with about 1½ quarts of milk per meal, feeding mornings and evenings only. I feed whole milk for a month or so, gradually increasing the amount of whole milk to 3 quarts per meal. From that on to any age I come gradually down to skim milk.

To avoid scours I aim never to overfeed with milk. I do not believe it pays to get it to look like a poisoned pup. I like it smooth. After the first week I put in a box nailed to the wall, equal parts of bran or shorts with corn chop and a tablespoonful of oilmeal. I keep alfalfa or any kind of good roughness in a rack for it to nibble at, and have a little salt in a box.

Feed the milk warm, never under any condition feed cold milk. I feed separated milk now and furnish good pasture when it is to be had. By the time it is a yearling it will be as large

as a calf that sucked three or four months. I believe it pays me well to take a little extra care of it. Never club, kick or whip a calf. A little kindness helps it to grow. Don't think you can do too much for it.—M. G. B.

TO PREVENT ABORTION.

The symptoms of contagious abortion are the same as those of sporadic abortion. Contagious abortion will go through a herd more or less rapidly and completely, while the sporadic form rarely affects very many cows in a herd. In view of this we judge that your herd is affected with the contagious form. Treatment for this consists in thorough disinfection of the premises (stable, etc.), and disinfection of the uterus of the aborting animals by syringing with a three or four per cent. solution of some of the reliable coal tar dips. The hips of the animals should also be disinfected. This may be done by wash-

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LET THE EXPERIENCE OF THE MAJORITY OF FARMERS BE YOUR GUIDE IN BUYING TWINE

THE time has come to order your binder twine for the 1910 harvest. Twine dealers are placing orders for their season's stock. The mills are running. Now is the time for you to decide the twine question. It is something that requires careful consideration. The success of your harvest will depend on the uninterrupted work of your binder, for no binder can work well if you use a cheap grade of binder twine.

It is our aim to have every farmer who uses IHC twine go through the 1910 harvest season without a break in the field. We have much more at stake than merely selling twine. Your interests and ours are the same.

We know that the raw materials from which IHC twines are spun have the quantity and quality of fibre that insure greater strength than is found in any other twine. They are evenly spun—smooth running—do not tangle in the twine box—work well in the knotter, insuring perfect binding and perfect tying. They insure your being able to work your binder through the entire harvest season with greatest speed and economy and are therefore practical profit insurance.

Those who buy cheap twine will certainly have trouble—delays due to tangles, knots and breaks will mean the loss of valuable time—and every delay at harvest time will cut down your profits.

There is a sure way to avoid this. Let the experience of the past be your guide in purchasing your twine. The verdict of the majority of the farmers of this country is a safe guide. Their decision should have more weight with you than the statement of any twine manufacturer. These farmers know. They have the same problems confronting them that you have. They have no axe to grind. They do not sell twine. They are only interested in results.

I H C Brand of Sisal—Standard Sisal Manila or Pure Manila

Are the twines used by the majority of the farmers of this country. They have been proved to give the best results. Eighty-five to 90 per cent of the farmers use Sisal. It is smooth running and works at steady tension without kinking or tangling in the twine box—insuring perfect binding and perfect tying. Its only equal is the really high grade Manila twines such as bear the IHC trade-mark.

Your interests and ours are identical on this twine proposition. We have more at stake than selling twine. We are vitally interested in the successful operation of hundreds of thousands of binders. On their successful operation depends our success—and we know they cannot operate successfully with poor twine. No binder made can. For this reason we have given the twine problem careful study. When we say "Stick to Sisal or high grade Manila bearing the IHC trade-mark"—we do so because we know them to be the highest standard of excellence in binder twine.

But we don't ask you to do as we say. We want you to be the judge. But your judgment to be right should be based on facts—not on the statement of any twine man. And the fact is—that the majority of the farmers of this country use IHC twine. Sisal or Standard (which is made from pure Sisal) comes 500 feet to the pound; high grade Manila, 600 feet to the pound; Pure Manila, 650 feet. See your local IHC dealer at once and let him know how much you will need. If you want more facts on binder twine, write direct to

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ful of water, if the animal will drink it, sometimes wards off the disease. There is no harm in using the milk of cows that have aborted, but they are not profitable milkers.

LEAVING MILK TOO LONG IN THE STABLE.

One of the surest ways of contaminating milk is to allow it to remain in the stable for a considerable time after it is drawn. This subject is touched on by Professor Woll in his book dealing with the principles of modern dairy practice. Among other things Professor Woll says:

"No matter how carefully the precautions given concerning the treatment of the milk are observed, the milk is always threatened with infection from many sources as long as it is in the stable. The fact that milk when drawn from the udder has a temperature highly favorable to the development of the bacteria, and that it is a splendid nutritive medium for the large majority of bacteria, makes the matter worse."

It is plain, therefore, that the milk ought to be removed from the warm stable as soon as possible. On almost all farms in our country an entirely different practice is followed. When a cow has been milked or the milk pail is full, the milk is poured into a large transportation can, at the opening of which a strainer is placed. As this does not allow the milk to run through very quickly, and the opening of the can is usually comparatively small, the milk must be poured slowly from the pail. The milk is usually left in the can until the whole herd has been milked, and it is then removed from the warm, foul air in the stable. This manner of procedure is very deleterious to the quality of the milk. It is exposed to air filled with all kinds of contagious organisms, and is left to remain in the stable an hour or still longer; this is so much worse since the transportation can is often not perfectly clean. I am fully convinced that diseases of milk with us are most frequently caused by irrational methods of procedure like those mentioned.

Fortunately, it is very easy to change this method so that it becomes, if not perfect, at any rate far better. First of all, the milk must be removed from the stable as soon as possible. Further, the milk ought not to be strained in the stable, but in a separate room nearby, where the air is pure and fresh, and where cleanliness is observed in the most scrupulous manner. Such a room



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ought to be found in connection with every cow stable. It must not be placed in the neighborhood of the manure pile, and is to be provided with large windows, but may otherwise be built very plainly. It is a good plan to keep the basin for washing the hands in this room, so that this operation may be performed after each cow has been milked."

While it is desirable that a special room be set apart into which the milk can be taken immediately after it is drawn, yet as a matter of fact, this is not always practicable where only a few cows are kept. In that case the precaution should be taken to place the milk outside the barn or stable. It requires very little time after each cow is milked to step to the door and strain the milk into another vessel. The straining in a clear, pure atmosphere will tend to aerate the milk so that such stable odors as have been absorbed will be eliminated. This plan should be carried out whether the milk is for sale directly or marketed in the form of by-products, or on the other hand, consumed by the family. This practice will be found to add greatly to the keeping qualities of milk and those who are having trouble about their milk souring too soon should not be contented until they have thoroughly tried out this plan of removing the milk from the stable as soon as it is drawn and straining it into a separate vessel in the open air.

CONDITION OF THE CATTLE, HOG AND SHEEP MARKET.

Sharp Decline In Cattle.

There was a sharp price loss for cattle last week, demand from both local dressed beef men and eastern shippers was of reduced proportions. Beef steer prices fell 25c to 40c, from the close of the previous week. Top beefes for the week went at \$8.75 and bulk of sales were at \$6.90 to \$8.10. Cows and heifers sold 35c to 60c under high point of the previous week. Most beef grades brought \$4.65 to \$6.00. Cannons and cutters went largely at \$3.10 to \$3.75. Bulk bulls \$4.75 to \$5.65. Stockers and feeders lost 40c to 65c from the recent high point. Sales were largely at \$5.50 to \$6.00 for feeders, and \$4.75 to \$5.25 for stockers. Veal calves largely at \$8.50 to \$9.25.

Buyers Lower Hog Prices.

The trend of the hog market last week was downward. Bearishness of local packers and slow eastern shipping demand proved too much for the selling interests. Low point of the week was Thursday, when top was \$10.95 and bulk of sales at \$10.70 to \$10.90, while the high point was on Monday when the top was \$11.20, and bulk of sales was at \$10.90 to \$11.10, the highest prices on record since the Civil War.

Sheep Sell Sharply Lower.

Buyers dominated the sheep and lamb trade last week and sellers were forced to do sums in subtraction to the amount of 50c to 60c, from the close of the previous week. A dull dressed meat market and increased arrivals were the bad combination. Top lambs for the week \$10.35 and bulk at \$9.25 to \$10.10. Most of the yearling brought \$8.50 to \$9.00. Top

on sheep \$9.10, with sales largely at \$7.75 to \$8.50.

THREE REASONS WHY SHEEP SHOULD BE KEPT ON EVERY FARM.

Horses are usually kept for one purpose; hogs for one purpose; cattle, at least for two; but sheep are kept for three. They furnish wool for clothing, they furnish food of a most wholesome and palatable kind, and as a destroyer of weeds, perhaps after all, the sheep have no equal. In this latter respect, I may point out that Professor Shaw, in his books on weeds, has listed 600 varieties, all of which are common, or at least known, throughout America. Of these weeds, cattle and horses will eat from fifty to seventy, while sheep will simply feast on no less than 550 of them.

(Continued on page 15)

POULTRY.

FOR SALE—Good honest stock eggs of Single Comb Brown Leghorns; finest strains. Cups and Blue Ribbon winners at Cumberland, Frostburg and Somerset. 600 fine large farm-raised birds for sale at reasonable prices. Twenty-five extra choice Light Brahma cockerels for sale. Write me. HERMAN SHOCKEY, Sand Patch, Pa.

MISCELLANEOUS.

HORSES going blind Barry Co., Iowa City, Ia., can cure.

FOR SALE—Two litters Scotch Collie puppies, sired by the noted "Flying Comet" and "Laddie Boy," out of bitches bred in the purple; perfectly marked golden sable; strong, healthy, farm-raised stock. Prices from \$10 up. FRANK H. TAYLOR, Reedsville, Pa.

MILCH GOATS.

MILCH GOATS—Information regarding this most profitable milk producing animal. Write G. H. Wickersham, 1242 St. Francis avenue, Wichita, Kansas.

SEND 10c for a sample copy of the largest, newest, race-horse paper published. P. J. WYAND, Cumberland, Md.

TROTTER MARE for sale—a handsome, black, trotting mare, and beautiful stud colt, very fast. Second cousin to Dan Patch. Price \$200. P. J. WYAND, Cumberland, Md.

FOR SALE—Pure-bred Registered Holstein Bull. Ready for service this spring. Born April 8, 1909. Two-thirds white. Finely marked. Fine individual. Write for pedigree and price. MADISON COOPER, 101 Court, Watertown, N. Y.

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HORSE ACTION

(Continued from March Issue.)

The variations of action to be noted in the handling of the hind limbs of the horse are many. Almost every possible conceivable eccentricity of movement is to be found at some time or another amongst horses. These variations depend upon many things, not only upon the set of the limb, and the integrity of the joints, but the proportionate lengths of the different divisions of the limb having a marked effect in changing the gait and style. Horses whose hocks are high up from the ground generally move with stylish, trappy appearance, often going high, while those which have them low down are apt to move with a long, swinging stride, in which speed is a prominent factor, but good trappy style an impossibility. Generally speaking, neither are to be preferred, although the keen demand for high style places some premium on the former. The old English motto of a tall horse, on short legs, as just the right thing in horseflesh, gives a cue to what should be looked for, in regard to this problem.

One of the most serious defects in the action of the hind legs is the tendency of the hocks to turn and bend outward when the weight of the animal is thrown upon the leg. Sometimes this is so bad as to cause the foot to twist on the ground, working the shoe loose in a short time. How much of the actual muscular energy of the animal is wasted in this effort, outside of the fact that the muscles are pulling one way while the foot and limb are compelled to move in another, can be appreciated when one tries to estimate how much strength it would take to twist the foot on the ground with the horse's weight resting upon it. There is a tremendous waste of energy, and the horse does his work at a great disadvantage.

In correct movement of the hind limb, the stifle should be set out wide and broad, and should play wide, as it moves, not working against the sides of the abdomen, a thing almost sure to have its effect upon the endurance of the horse. This wide play of the stifle should be countered by the closer set of the hock below, allowing the legs to stand well under the body. Horses built in this way are a little more apt to travel well, carrying the stifle wide, the hocks close, and the whole limb straight and true. The hock set well under the body prevents the disposition to roll, and rolling and jarring of the vital organs has about as bad an effect upon the animal's endurance as has pressure and hammering from elbows and stifles. Well set, springy ankles exert a full share in the prevention of this, and have a great big value, outside of the fact that they allow feet and limbs to last and wear longer.

When the hocks are carried close together, there is less likelihood that the animal will "interfere" than when they are bent outward, and feet point in. When shoes are turned well up in travelling it indicates a pleasing flexibility of joints and tendons, and an absence of stiffness either natural or acquired. The hind foot should not only move forward straight and true,

but should, like the fore limb, be carried just to the place where there is neither dwelling nor stubbing and set squarely down.

Horses which travel just right both before and behind are not too commonly met with. Few classes could be led out before an experienced and capable judge, in which he could not pick out an outstanding winner in point of action.

Even when a horse travels correctly, both in front and behind, there is still that other factor of co-ordination between the two ends, which means that the hind feet follow the front ones at just the right distance, neither exhibiting a tendency to over stepping, or, on the other hand, to traveling in too "spread out" a manner. There is a point where true balance is preserved and where full strength is maintained with little effort or trouble, where the gait is both easy and free, both strong and well balanced, effective and safe.

In the case of extremely high class action, either in the case of the galloper which can win a hard fought handicap, the trotter which can fight all the way to a record mile and the end of a long day's racing, or the heavy harness horse, superlative in his grandeur of gait, stride and style, the qualities of symmetry, perfect alignment, proportion and co-ordination all combined do not fully account for their possession. There is present in a high degree another quality, an elevation of elemental temperament, a nervous quality which gives powerful expression to natural faculties,—the quality which in mankind makes artists, orators.

How much of the actual force of motion is wasted by a horse whose feet describe semi-circles, or wind outward or inward when he travels? The force required to lift and carry forward a foot which cannot, by reason of its joints being set at different angles, travel in a straight line, is greater by many times than that necessary to do so when only straight movements are required. A great waste of effort is inevitable, and the horse travels at a great disadvantage.

In regard to the articulation of the ankle, the factor of leverage works out to a far less degree, but an incorrect, ill-set ankle also has its effect upon the capacity of the animal for work. In action the effects of the badly set ankle are visible in a jerky movement of the foot as it rises, and a corresponding twitch, as if feel-

ing its footing as it again touches the ground. Friction of this kind has its effect upon both external and internal parts of the foot, which is rendered less capable of withstanding the heavy impact of travel, especially of fast work.

Smooth, harmonious working of the rear limbs is no less important. It is here that the propelling power of the horse lies. The great muscles of the quarters are capable of exerting a power which tests severely the integrity of the big bony structures over which they play.

As in the shoulder, so in the hind quarter, there is conformation which means length and strength at the same time, and a good deal can be judged from the conformation when the horse is at rest. When the upper portion of the quarter is long, there will probably be a corresponding length of thigh bone from rump to stifle. This conformation allows both for length and strength of stride, and greatly increases capacity for work of all kinds. The horse with a long quarter, and long sloping shoulder will have the bodily conformation so much desired, a short back and a long underline.

Integrity of action in the hind limbs of the horse is a more delicate matter, and dependent upon more precarious conditions than is the case in front. There is greater freedom of play in the femur joint, the stifle joint as well having a loose articulation. Perfect action in the hind limbs depends upon accurate placement as well as perfect co-ordination of the joints of the hock. The alignment is an absolute necessity if the horse is to travel right. As in the fore leg, too, the great loss of bad action is through unnecessary swinging of the limb, but there is the added loss of energy through the exercise of other muscles necessary to accomplish compensation.

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HOGS

THE BREEDING SEASON.

By William Dietrich.

In our March issue we printed part of this article, taken from a new book, "Swine," written by this great authority on everything having to do with the breeding and feeding of hogs, Mr. William Dietrich. In this number we want to give you the balance of the chapter, and perhaps a little something more from the book that will persuade you to send to the publishers, Sanders Publishing Company, Chicago, Ill., for a copy.

Pork Hogs.

The time at which a hog is bred should be such that the pigs can be taken to market at a desirable weight when the market for such hogs is the best. This naturally brings into consideration the manner in which these pigs are to be fed, or the length of the feeding period. If pigs are to be well fed from the time they learn to eat, so as to get them to the greatest weight in the shortest time, the sow may have to be bred at an entirely different time than would be the case if the pigs were to be fed more slowly. The time at which the sow is to be bred will also depend in a large measure upon the available shelter. If comfortable hog houses are at hand, the sow may be bred to farrow earlier in the spring of the year than if such shelter were not at hand.

The number of litters per year also exercises an influence in this regard. If only one litter per year is to be produced, the sow may be bred to farrow when the season is most congenial, but if she is to produce two litters per year, the fall season will also have to be taken into consideration. Under the system of feeding in common practice, a winter pig cannot be as successfully handled as a spring pig. As already outlined, this apparently is due to the fact that such pigs receive too little protein and water, as well as not enough exercise. Under such conditions fall pigs should be farrowed as early as possible, which would naturally also require that the spring crop be farrowed early.

Age of Gilts.

The age at which a gilt is first to be bred was discussed in Chapter 14, in connection with feeding, but in general it may be said that a sow should not produce more than two litters during the first two years of her life. These may be farrowed at one, or one and one-half years, and two years respectively. By this time she will be practically mature and can produce two litters per year thereafter. In general, then, the time at which a sow is to be bred is controlled by the time at which the pigs are to be marketed.

Condition of Sire and Dam.

The condition of the sire, and more especially the condition of the dam, during the breeding season exercises considerable influence on the offspring. In order to produce the best results the condition of both sire and dam should be such that they are healthy, thrifty and vigorous. As already stated, the tendency of swine is to transmit their characteristics to a greater

or less extent to their immediate offspring. If a sow is too thin in flesh at the breeding season, she may not come in heat at all, or, if too fat, she may be difficult to get with pig. Furthermore, the size of the litter, as well as the size, thriftiness and vigor of the pigs, depends in large measure upon the condition of the sow, not only at breeding time, but during the entire period of gestation. It is considered that if a sow is in a state of rapid improvement at the time she is being bred, and is vigorous, active and in high flesh during the period of gestation, she will produce the largest litter and also the best pigs.

Prolificacy.

Prolificacy, then, or the number of pigs that will be farrowed by a sow is largely a matter of feeding and care. If a sow is properly handled, she will be prolific and produce a large number of pigs per litter, while otherwise she will not. This of course is considerably influenced by selection. Hogs from prolific strains will produce more pigs per litter than those selected from strains not so prolific.

Useful Age of Sire and Dam.

The question is often asked how long a breeding animal should be retained in a herd. This can be answered most directly and perhaps in the best way by saying that a breeding animal should be retained in a herd as long as good results are produced by it. Both sire and dam may be misused to the extent that they will not do good service for more than a few years.

The Sire.

In order that a boar may be of the greatest service he should not be used, except to a very slight extent, until he has come to maturity. He may be used on a very few sows at the age of eight or nine months, and may be used on a few more when he is a year old, but in general he should not be put to hard service until he has come to maturity at about two years of age. Even then he should not be overworked. One service a day is considered to be sufficient when used for a considerable length of time. When used continuously the whole year this is too much. In emergency cases, for a short period of time, two or even more services per day may be allowed in the case of a vigorous animal, provided he is allowed to rest before and afterwards.

The Dam.

The sow is useful and should remain in the herd as long as she can produce and raise a large litter. A mistake is often made by retaining young sows year after year and selling the older ones. It is argued that after producing a litter the sow will make profitable gains, which is naturally true, and that she can be put in market condition along with the litter to good advantage. While this is true, she is also developing into a more valuable breeding animal. When young sows are being kept year after year the practice of selection, as discussed in Chapter 8, is very largely lost because good individuals do not appear in large enough numbers so that an entirely new breeding herd of

good sows can be selected year after year. Furthermore, all good appearing individuals are not good breeders because they do not produce large litters, may not give sufficient milk to nourish their litters, may not be good mothers to care for them after farrowing, etc. Thus a mature sow that has been tried should be kept in the herd as long as possible. This can be done with profit, especially when two litters a year are being produced.

HELPING YOUNG PIGS ALONG.

Mr. Editor—In my 20 years' experience raising hogs I have lost few young pigs. The sows are given a separate farrowing pen, not less than four days before time, a week or 10 days is better. I hand-breed, so I know to the dot when to look for my little porkers. The time is 112 days and they are nearly always on time, but I had one sow farrow the 111th day and two the 113th. From seven to 20 sows I raise two litters every 14 months.

I keep the beds dry and feed bran and shorts in slop, also corn and water—not too much corn. I keep salt, ashes and coppers within easy reach, and a small amount of black antimony in a trough. If shoats or older hogs won't eat, but look dumpish, sometimes scouring or vomiting, give each hog ½ teaspoonful of white hellebore in a pint of sweet milk. It will make them very sick but never fails to cure. They soon get better and, if they vomit well, they seldom need a second dose. If they are troubled with thumps and worms a half teaspoonful of white hellebore to each hog is a never-failing cure.

THERE CAN BE BUT ONE BEST
Why lose profits breeding and feeding scrub hogs? Two of our O. I. C. hogs weighed 2806 lbs. We are headquarters for breeders. Will send sample pair of our famous O. I. C. HOGS on time, and give agency to first applicant. We are originators most extensive breeders and shippers of thoroughbred swine in the world. Write for circulars. **L. B. SILVER CO.,** 337 CAXTON, CLEVELAND, OHIO.
Est. 1863 U. S. Gov't Inspected herd

BARGAINS IN POLAND - CHINAS, BERKSHIRES and CHESTER WHITES
I now have a large stock of probably the best I ever owned. Cannot tell you all here, but I have Boars and sows bred and mated not akin; sows bred and mated ready for service. Guernsey Calves and Registered Scotch Collie Puppies. Write for prices and free circular. This stock must go and will be sold. M. B. Turkeys, Barred and White P. Rocks, B. Leghorns and Beagle Dogs. **P. F. HAMILTON,** Cochranville, Pa.

HOGS.
FOR SALE—Duroc and Poland China Registered stock bred sows. Service Boars \$15 to \$20. 40-lb. Pigs \$5. Also some choice Rhode Island Red chickens. **WM. HARSHMAN,** Thurmont, Md.

FOR SALE—Some fine Yorkshire Pigs—no better stock in U. S. Just imported—new blood. **A. A. BRADLEY,** Frewsburg, N. Y.

BUYING A BOAR BY MAIL—STATE YOUR NEEDS FULLY.

Whenever possible the breeder ought to inspect personally the animal he selects as a herd boar, but when unable to do this and he has no competent representative, he should endeavor to make the best selection possible by mail by detailing his needs, and the deficiencies of his sows. Ordering by mail should be considered a last resort, to be done only when the purchaser cannot buy near home, or for other good reasons is unable to give his personal attention to the selection. When that is the case the purchase should be made from a breeder known to be reputable and the needs of the buyer and the price he figures on paying should be definitely stated in the letter as the attitude of one who expects the best possible for his outlay.

All men who have much to do with the selling of purebred boars are familiar with the buyer who insists that "you must get him down as low as you can—he must be cheap, as I have written to a number of other breeders." A man of this stamp is likely to want a boar of almost impossible makeup for a very small sum. He is less likely to do well in his purchase than the man who will frankly state the type of boar he needs and the amount of money he can afford or intends to invest. The chances are, too, that the latter procedure will bring much the better treatment.

CORN FOR BROOD SOWS.

Recently I made several experiments with corn as a ration for brood sows. The first experiment was during the winter when there was no green feed of any kind, and the hog was fed mostly on a middlings made into a slop two or three times a day. Occasionally she was given a couple of ears of corn. She farrowed to good healthy pigs, even and of good size. I raised them all and all were put to the market.

After weaning she was bred at once, putting the second breeding period in the summer. She had good pasture and a little forage whenever possible. She was fed a gallon of skim milk fresh from the separator morning and evening and occasionally an ear of corn; but she did not receive as much as a peck of grain during the whole time. In late summer she farrowed 13 pigs. One was dead and two others were a little small. These two I gave away and raised the 10. This litter was not as even as the other, but all right. I am satisfied a little grain would have helped.

At the weaning of this litter the sow was bred once more, this time for winter feeding. She had the run of the lots but there was nothing there to eat. She was fed mostly on corn, with an occasional bucket of middling slop. She farrowed 11 pigs, one dead, another a runt, and she killed two more. The litter was not as good as the other two, and I could see a great difference in the disposition of the sow. She had no ambition, and when a pig squealed she did not care whether she got off it or not. My plan ordinarily has been to keep the sows and pigs on feed other than corn as much as possible.

BREEDING THE SOW.

The period of heat is the time at which a sow is in season ready to be bred. It usually occurs about every twenty-one days and, if a sow is not bred, lasts for two or three days. The methods employed for serving a sow are two—first, that which makes use of the breeding crate, and second, where the boar and sow are allowed to run together.

The breeding crate is useful where matings are to be made with sire and dam of different sizes, and especially of the difference in size between animals is considerable. The crate is constructed so that the sow is confined and cannot get away, with a platform to the rear of her, upon which the boar stands, which may be raised or lowered. While there are several different kinds of breeding crates on the market, any home-made piece of apparatus that will hold a sow in position and either raise or lower the boar, as the case may be, will answer the purpose. It is generally considered, however, that this method of breeding is more or less artificial and not productive of as good results as when the natural method is employed and the boar occupies the pasture with the sow. Under such conditions the most favorable time to copulate will be selected, thus producing better results. One of the purposes of the breeding crate is to assist an awkward and clumsy boar that cannot handle himself. This usually affords a poor excuse for such a crate. If a boar is properly kept and fed, he will always be able to do service unassisted by a crate. If a breeder is producing pure bred hogs and constantly improving his herd, he will usually have good young boars coming on that may be used on such young gilts as are to be bred and not able to support an old large boar, thus rendering the breeding crate an unnecessary adjunct in swine breeding operations. However, a show boar that is more or less clumsy on account of high condition, may be assisted materially by a crate, as may also any large or small boar that is to be used on large and small sows respectively.

TREATING THE BARBED WIRE CUT.

If your promising yearling colt should run into the barbed wire fence today and cut an ugly gash in his shoulder, have you a good liniment ready to treat him?

If you haven't, you ought to have. You will have use for it. If you do not know what liniment to select, it is well to be guided by the experience of others and pin your faith to something like the old reliable Kendall's Spavin Cure.

Kendall's Spavin Cure is one horse remedy that does not go out of fashion. There is no reason why it should. More than a generation ago it was found to be a wonderfully efficient cure for common horse ailments, and as these ailments are the same now as they have always been, the remedy is as powerful as it ever was.

Time, however, has added greatly to its popularity. Almost all horse owners know it. Druggists everywhere sell it; in fact, they are compelled to sell it, because horsemen call for it and will accept no other remedy. A little book, "A Treatise on the Horse and His Diseases," published by the

makers of Kendall's Spavin Cure, can be had free at stores where the remedy is sold, or upon application to the manufacturers, Dr. J. B. Kendall, Enosburg Falls, Vt. Enclose a 2 cent stamp and it will be mailed to any address.



Fences Cost the Least and give the most returns of any improvements on the farm

Look around and see the farmer who has money in the bank and who buys another quarter-section every few years. See his farm—it is fenced hog-tight. What is good for him is good for you. Enough feed is wasted on the average quarter-section of unfenced fields to feed a large drove of hogs.

Any American Fence dealer will quote you figures that may astonish you on fencing your farm with heavy, hog-tight fence. You have no idea how little money it takes, considering what you will actually save.

American Fence is made of hard, stiff steel. It is made of a quality of wire drawn expressly for woven-wire-fence purposes by the largest manufacturers of wire in the world. Galvanized by the latest improved process—the best that the skill and experience of years has taught. Built on the elastic, hinged-joint (patented) principle, which effectively protects the stay or upright wires from breaking under hard usage.

The real test of a fence is the service you get out of it. Test, judge and compare American Fence under any and all conditions and you will find that the steel, the structure and the galvanizing are equal in durability, strength and efficiency to the hardest usage.

F. Baackes, Vice-Pres. & Gen. Sales Agent
American Steel & Wire Co.
Chicago New York Denver San Francisco

NOTE—Dealers Everywhere. See the one in your town and have him show you the different designs and give prices. Also get from him booklet entitled "HOW TO BUILD A CHEAP CONCRETE FENCE POST," furnished free for the asking.

Economical Poultry House Construction

By A. C. Thomae, Brookside Farm, Bound Brook, N. J.

WE have had so many requests for back numbers of April, 1909, containing Mr. Thomae's poultry house article, that even our file copies have been sent out, and we are forced to reprint the article in this issue.

Having observed recently some new poultry houses in course of construction, under the supervision of a first-class builder, the extravagant use of material, to say nothing of the labor cost, impressed me so forcibly that it occurred to me some of my farm friends might be interested in the details of a ten by twelve house built by myself, about three years ago, at a cost of 26 cents per square foot area, or \$1.05 per hen, exclusive of labor.

No Floor.

The house is built without a floor; the framing being light hemlock and the enclosure sound 1x10 tongued and grooved white pine.

Fig. 1 shows the sills of 4x4 hemlock and these are placed on stone and raised a few inches above the ground. Inside the sills are placed old boards on edge and the area within the sills is then filled up with dry gravel and sand, which forms the floor.

Figs. 2, 3, 4 and 5 show the framing of the sides, front and back respectively.

The corner posts, 3x4, are placed on the sills with the 4-inch face towards the front. This affords ample bearing for the 2x3 end pieces, forming the side and roof supports, and the 2x3 plate pieces front and rear.



Referring to Fig. 3, showing the framing of the front, the 2x3 nailing

pieces A and B are spaced to correspond with the height of the windows, the piece B serving also as support for the window sill, on which the windows slide open in opposite directions.

For Light.

The windows are made of one 6-light and one 9-light sash of 7 by 9 glass, fastened together with screws, thus forming a fifteen-light sash, costing \$3.20 for two windows. Wire screens made of one inch mesh poultry wire, and placed inside the house, protect the windows when closed. Above the windows is an opening about 18x36 inches, in which is fitted a frame covered with muslin which affords ventilation.

Roosting.

At the rear of the house, extending 8 feet from the east end, is the roosting platform (ground plan Fig. 1), three feet wide and 20 in. above the sill. The west is protected from draughts by a frame fitting snugly across the end of the platform and covered with roofing paper.

The roost poles, two in number, are made of 2x3 hemlock with the surface smooth and the upper edges rounded slightly. These are supported on "horses"

at each end, notched so as to space them 14 in. apart, and keep them in place. Any kind of nest boxes that suit one's fancy may be used.

All interior fittings, such as roosts, dropping boards, nests, etc., are removable, so that in cleaning and spraying the work can be done more effectively, every part being accessible to spray or powder.

The building, while not lined, is tight, durable, and dry, and will nicely accommodate a colony of thirty hens.

Belle Brand Crushed Oyster Shells

Make Poultry PAY!

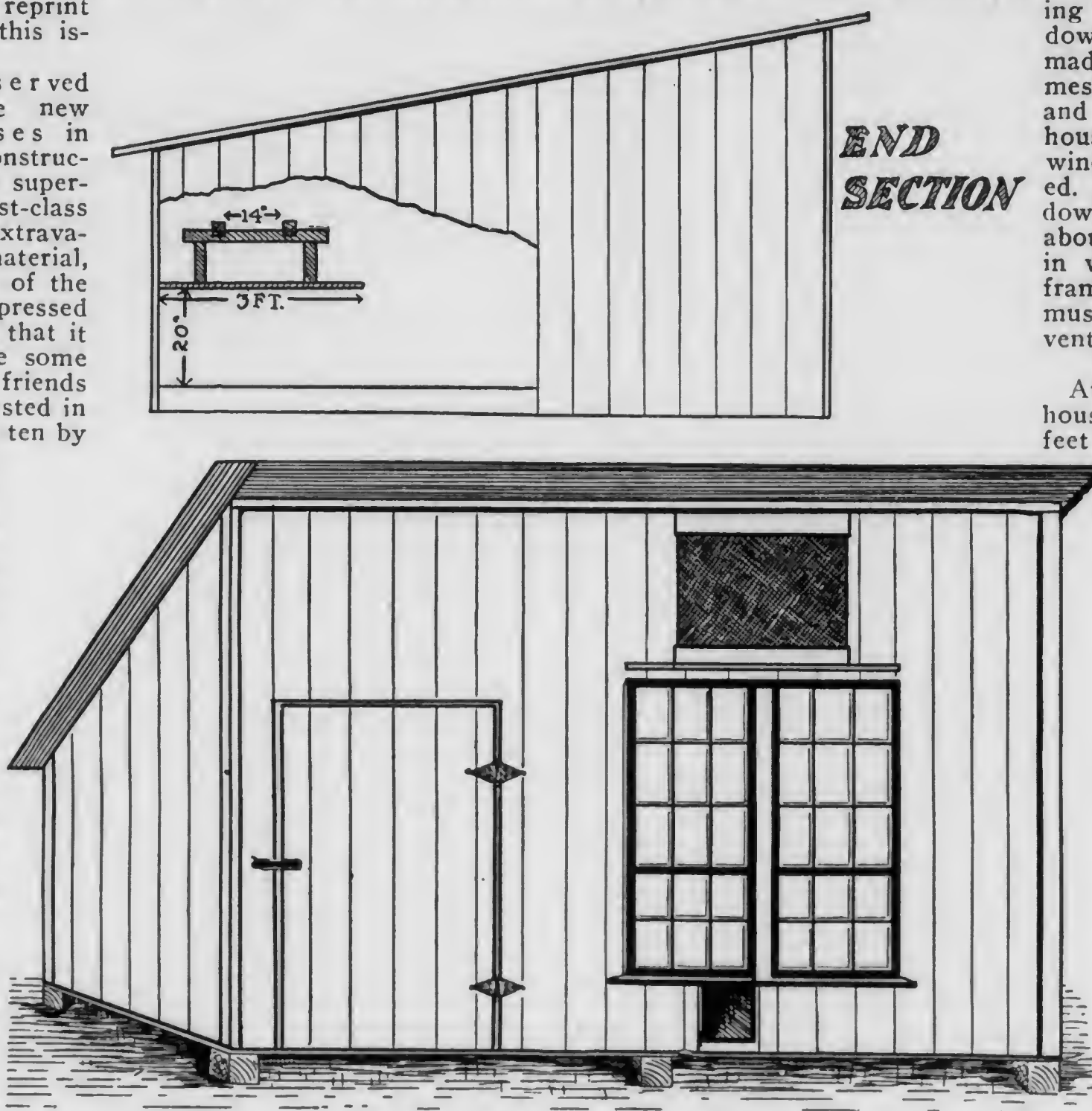
Tests show where these shells have been used—duration of test 22 days—number of eggs 33; weight of eggs, 1489.6 grammes. Where Sharp Grits were fed—test 22 days—number of eggs 6; weight of eggs, 257.6 grammes. This is convincing argument why every poultry house or yard should have them. They'll make hens lay an egg a day, with firm, hard shell—less liable to break in shipment. Belle Brand Crushed Oyster Shells supply Carbonate of Lime in natural form, making them superior to any other poultry food on the market. Write for Free Catalogue to LOUIS GREBB, BALTIMORE, MD.

Material and Cost.

4 pieces 4x4x12 hemlock	
2 pieces 3x4x12 hemlock	\$2.20
10 pieces 2x3x16 hemlock	2.50
16 pieces 1x10x12 hemlock (roof)	4.32
2 pieces 1x6x16 spruce	.50
22 pieces 1x10x16 pine—T & G dressed	11.76
140 feet 1x2 arbor lath	1.40
Windows	3.20
Roofing	3.00
Hardware and Paint	2.00

Total.....\$30.97

END SECTION



FRONT VIEW

tions. This piece is placed 12 inches above the top of the sill.

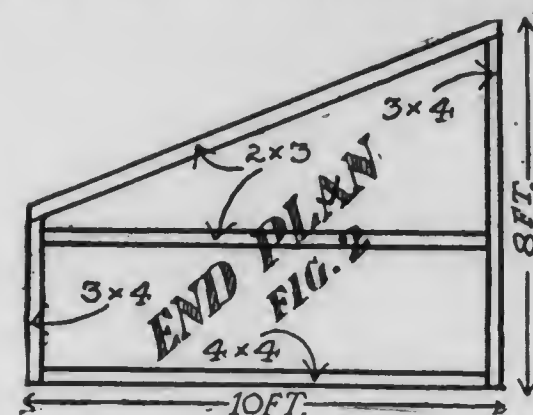
The Roof.

The roof is made of 1x10 hemlock boards dressed on one side. These are laid with the pitch, and are supported by intermediate nailing pieces C and D. Fig. 5, made of two pieces of 1x3 spruce, nailed together and placed edgewise, at an angle corresponding with the pitch of the end pieces. The covering is two-ply roofing, which is brought down and under the eaves front, back and sides, and fastened with 1x2 pine arbor lath.

The overhang of the roof is six inches front and back and four inches on the sides.

Particular Features.

The particular features of this house are its low cost, the economy of ma-



terial used in the frame, and the slight waste in cutting. It will be noted that the heaviest timbers are the 4x4 sills and 3x4 posts.

The enclosure is cut from 16 ft. boards, one board cutting four pieces for the back or two for the front.

The sliding window is preferred because it is always out of the way

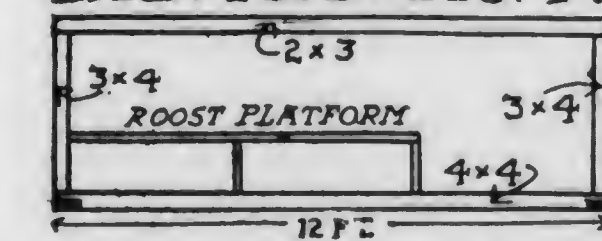


and can be opened partially without throwing a draft directly on the floor. I also prefer to have the nest boxes as near the ground as possible and do not favor the under-the-platform scheme. The objections to the latter are that they cut off the light under the platform and are more likely to become infested with mites if placed anywhere near the roosts.

Some poultry men prefer a house 7 ft. high in front by 4 ft. 6 in. to 5 ft. high in the back. Seven feet in front is plenty high enough so far as air, light and sunshine are concerned, while a height of 4 ft. 6 in. to 5 ft. in the rear affords more head room under the dropping board.

But if white pine is to form the enclosure, as in the case of the house described, it will be found, I think, that there is less waste of material if

BACK PLAN FIG. 4.



the dimensions, 8 ft. front by 4 ft. back are followed.

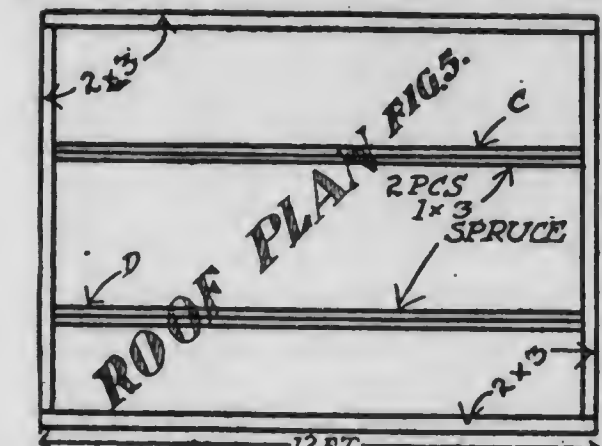
Ventilation.

Then, too, the pitch of 2 ft. to 5 ft. for a shed roof gives the building a neater appearance, and affords better circulation of air, consequently better ventilation than the building with the roof having less rise to the front.

Of course there are, and always will be, all sorts and kinds of poultry houses to suit the conditions of soil and climate, but we have two of this design in use now and find them very satisfactory. The only changes recommended are muslin covered windows in place of glass, and 8 inches overhang of roof at rear to take the drip farther from the building.

Any Length House.

It will of course be understood that the plan above described applies only to houses of the colony type; that is, 10x12 or smaller, where the four sides of the building form the main supports for the roof. But by increasing



slightly the sizes of the caps, end pieces and roof supports, the same general plan might be followed for a house of any desired length, where the character of the soil is such as to make it possible to have a perfectly dry house without a floor.

Mr. Thomae has asked us to say that the drawing "End Section" is not quite in proportion. The roof really has more slant, as the front is twice the height of the back.

In End Plan, Fig. 2, the height of the back is 4 feet.

Mr. Thomae is also of the opinion that it might be better to use but one glass window, near the floor, and to enlarge the opening now shown above the windows very materially, using muslin.

CROP BOUND.

There are more cases of crop bound in the farmer's flock in the spring than at any other season. The reason for this is that the hens have been confined in their houses or barns during the winter and have had no opportunity to eat any grass, like they do in summer. When warm weather comes on and they are let out, they consume some of the dry grass that covers the

ground. Some of them do not over-eat of this material and are able to digest it; others eat too much and are unable to digest it. In the latter case it sometimes forms a hard ball in the crop and remains there, preventing proper digestion of other foods.

Sometimes a little soda and water will loosen it and if it is worked gently with the fingers, from the outside, it will come apart and pass out of the crop. If the soda and water does not work sometimes vaseline may be used in the same manner. In a severe case, which does not respond to treatment of this kind, it is best to dispose of the hen if she is not very valuable.

\$350 a Month--500 Hens



ALWAYS FULL BRIGGS' SYSTEM DOES IT

Edgar Briggs did it! BRIGGS, the Thomas A. Edison of the Poultry World—the man who wrote "Profits in Poultry Keeping Solved"—fourth edition just now ready. No branch of mercantile business or farming pays the profit that poultry guarantees under the Briggs system. discovery alone is now saving farmers and poultrymen thousands of dollars daily. He feeds his hens "poultry ensilage"—a processed feed that makes them lay regularly, even in winter, when egg prices are "out of sight." Briggs tells how to make the ensilage at not to exceed 15c per bushel. Briggs' Book contains literally hundreds of secrets, making poultry raising for every one a profitable business or side line. FEAST OF FACTS, \$1.00—For a short time only we offer Briggs' Book "Profits in Poultry Keeping Solved"—100 pages, fully illustrated and nicely bound, including "Secrets in Poultry Culture"—the many secrets used by Briggs, and one year's subscription to "Poultry Success," the leading monthly poultry journal. If you have never read it, borrow a copy from your neighbors, or write for samples. ALL THE ABOVE ONLY \$1. Write to-day.

HOSTERMAN PUB. CO.,
Briggs' Desk 57, Springfield, Ohio.

THESE SICKLY-LOOKING CHICKS NOT FED OUR WAY

They wouldn't be wilted, forlorn and droopy as are these poor little fellows. What's the matter? Likely some one has been feeding a lot of table scraps, or sour bread, or some other indigestible mixture that is fermenting in their stomachs. Tomorrow the owner will find eight or ten dead, and wonder: "What killed my chicks?" Chicks are babies and must have baby food. That's why Puritan Chick Food is so successful in rearing chicks, keeping them well and holding down the death-rate. It just "fits" the interior mechanism of the digestive organs of a chick.

Puritan Chick Food (The Safe Kind)

has a delightful taste and odor to a little chick, because it is compounded of those very pure, wholesome and sweet elements that naturally attract it. Your little "puff-balls" will make things fly scratching; they are always happy and busy when fed on it. Some of the largest poultry plants use Puritan Chick Food. It pays them. It will pay you, no matter how small your flock. It is foresight, wisdom, economy and profit for you always to keep it on hand. It's true life insurance for your chicks, all other things being equal. We guarantee it so, and refund money if you're not satisfied. No fussing about it, either—your word is final. Puritan Chick Food is put up in 5-lb. boxes for 25c; 25-lb. bags \$1.00; 50-lb. bags \$1.75; 100-lb. bags \$3.25. Ask your dealer for it. If he hasn't it we'll supply you. Booklet free. Write now for it.



Puritan American Poultry Food Mfg. Co.,
Bound Brook, New Jersey



FRUITS AND VEGETABLES

PLANTING IN APRIL.

If you have followed our suggestions during the past twelve months you will know just what should be done in the garden during this month of April, and you will know how to have better results by a long way than ever before.

Just as a reminder, however, we will say that the soil must be thoroughly worked and made ready to plant about everything, starting with onion sets, onion seed, radish and lettuce early, if not already in during the week of March, following with asparagus roots, peas, beets, celery, cabbage and potatoes. Then let parsnips and carrots follow. Be giving your tomato and egg plants plenty of fresh air, but don't get over anxious about setting them out. Remember, as we said last year, we are not in favor of too early planting. Wait until the soil has been warmed up and danger of almost certain frosts has passed, and results will be so much more satisfactory. It's a mistake to work ground that's too wet. You will have more or less bad effects from it all summer.

If you have a little spare time don't forget to work over your compost for the corn crop. My! Can't you just imagine your teeth sinking into a luscious ear. How can anyone fail to provide plenty of green vegetables? It's worth living just to have a good garden.

APRIL SPRAYING.

Apple—Within a week after blossoms have fallen spray with Bordeaux Mixture and Paris Green, and repeat twice, two weeks apart, omitting Paris Green from last spraying.

Currants—Spray as soon as first worm appears with Paris Green. If they reappear, repeat, adding Bordeaux Mixture for mildew, but not later than three weeks before fruit is ripe. If a third spraying should be necessary use pyrethrum or helio-bore.

Gooseberry—As leaves open use Paris Green and Bordeaux Mixture. Repeat in two weeks. If mildew persists after fruit is gathered spray with Bordeaux Mixture.

Cherry—When fruit has set spray with Bordeaux Mixture and Paris Green, and repeat 10 to 12 days later if signs of rot appear. A dozen days later than this spray with a weak solution of copper sulphate.

Grape—When first leaves are half grown spray with Bordeaux Mixture and Paris Green, and repeat as soon as fruit is set.

Peach—As soon as fruit has set spray with Bordeaux Mixture and Paris Green, and repeat twice two weeks apart.

Pear—Same treatment within a week of blossoms falling, the last spraying to be without Bordeaux Mixture.

Plum—Same when fruit has set.

Potatoes—Soak the seed in corrosive sublimate solution (2 ozs. in 16 gals. of water for 90 minutes). As soon as bugs or larvae appear spray with Paris Green, 1 pound to 50 gals. water.

Quince—Same as pear.

Raspberry—When new canes are a foot high spray with Bordeaux Mixture and 10 to 14 days later spray with weak copper sulphate solution.

Strawberry—When fruit has set spray with Bordeaux Mixture or weak copper sulphate solution.

RASPBERRIES FOR PROFIT.

By Emory Kimball.

Of all the small fruits we have found the red raspberry the most profitable. It is in great demand in our markets, so that the supply is always less than what could be sold. Prices are usually good, the berries retailing from fifteen to twenty cents per quart box. If sold through a middle man profits will, of course, be less. The fruit is somewhat perishable and is best sold directly in a local market.

The raspberry patch does not run out every year or two as does a strawberry bed, but with some little care will last for several years.

We have tried about all the varieties and find the Cuthbert the only one that we care to cultivate for main crop. It is later than some, but it lasts through a long season, sometimes into the fourth week of harvesting it, if rains are abundant to help it along. It is a large, firm, delicious berry, of good shape, does not crumble, nor drop off with over ripeness when a rainy day prevents picking.

Our market does not take to the black, purple or white raspberries. So we have discarded all but the Cuthbert.

The red raspberries propagate rapidly from suckers, and after a few plants have once become established there will be no lack of young plants for increasing the patch.

We set the plants in rows and ever after keep them in rows. * Seven feet between the rows is none too great a distance and we like nine feet better. When first setting the small plants this seems a great distance. But when the plants have grown to large, thrifty bushes the rows will almost meet. The patch can be kept in better shape and the pickers can work more easily and quickly if there are good aisles between the rows. Weeds, grass, and suckers are kept in subjection by plowing and cultivating between the rows every spring.

* We cannot see any necessity for such waste of ground, but we are publishing the article as Mr. Kimball wrote it.—Editor.

Raspberries respond to good fertilization. A liberal dressing of stable manure every fall or spring keeps the berries at par in size, primeness and abundance. Nowhere does such fertilizer seem to bring any better returns than in the berry patch. For large, delicious, marketable berries, fertilizer is the price to pay.

Raspberry canes bear only once. Consequently the old canes should be cut out every year, the new canes thinned down to a reasonable number and cut back to three or three and a half feet high. This cutting off of the tops increases the number of laterals on each cane, and so increases the bearing surface for berries.

There is a difference of opinion as to when this pruning should be done, a majority, perhaps, think that it should be done after the bearing season. As a matter of fact we do it in the spring, partly because we do not get about it in the fall, but chiefly because experience has seemed to tell us that the berries winter better in northern and central New England if unpruned. The abundance of canes seems to afford protection. We believe in topping off the canes once or twice after the bearing season to increase the growth of laterals.

Marketable value is increased by nicety in picking. We find high school girls good pickers. They are clean, careful, and quick about their work, and are available in the summer vacation. Our pickers use five pound grape baskets, which they fasten with a strap about the shoulders, thus leaving both hands free for the work. The berries are then poured lightly and quickly into the berry baskets, all leaves, litter, and imperfect fruit being detected and removed.

A FERTILIZER POINT.

Remember that plant food, the part you are after, costs more in low grade, cheap fertilizers, than it does in the better and more expensive grades. For example: A 1-5-1 fertilizer (1 per cent ammonia, 5 per cent available phosphoric acid, and 1 per cent potash) will cost more than twice as much as a 2-10-2 fertilizer, although it contains only half as much plant food.

We advise you to buy 16 per cent dissolved rock or acid phosphate, when possible, but of course it will cost you more per hundred pounds than 14 per cent. The cheapest filler is the soil and the best mixer your harrow, therefore avoid low priced

CLARK'S
DOUBLE ACTION HARROW & CULTIVATOR
FOR 100% CROPS

With this tool more different kinds of work can be done, with less effort, than with any other. **CLARK'S** is the only Disk Cultivator that completely embodies the double action principle. It will do the work of several disk machines that would cost you several times as much, and do it more thoroughly, because it has 4 gangs instead of only 2. The draft is always from center—suitable for 2 light horses. Equipped with Extension Head and Jointed Pole, and when so ordered two large disks for 1st and 2nd gangs.

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THE ORIGINAL "CUTAWAY."

fertilizer if you want to avoid paying for filler.

Analysis of hundreds of samples of fertilizers of recognized brands fails to show any great difference between the per centage of ingredients guaranteed by the manufacturers, and the actual figures shown by the analysis.

TO HAVE BEST PEAS.

No matter what may have been said to you to the contrary, if you are raising peas for market, you must give the early crop plenty of fertilizer. More is needed in the cool of spring than after while when the sun is hotter. Give them at least 5 per cent ammonia.

Make your furrow, then sow your fertilizer, and throw back a covering of soil so that the peas can be sown on top and not directly in the fertilizer.

There isn't very much market in local towns and villages for early beans, because every one with a back lot grows a patch, but there are never enough green peas, and the prices are good, too.

The town gardener generally gets tired planting and weeding before the summer advances very far, and is ready to buy his supplies from those whose business it is to grow them.

A NEW POTATO DISEASE.

The wart disease is a new enemy of the potato crop which is attracting great attention in Europe, and which is liable to be introduced into the United States at any time. It affects the tubers, forming large, rough unsightly warts, and, in severe attacks, completely destroys the crop. Once the fungus gets into the soil, it is impossible to grow a crop of potatoes on the land for several years.

The fungus which causes this disease was discovered in 1896 in potatoes grown in Hungary. It is now prevalent in many places in England and there is great danger that it may spread to Ireland. It is also found in Germany and some other European countries. It has been carried to Newfoundland, but has not yet appeared in the United States.

It is spread by using affected potatoes for seed, and, as this country imports potatoes every year, there is danger that it may be introduced.

The U. S. Department of Agriculture has recently issued a circular (for free distribution) giving a brief account of the disease.

CORN GROWING CONTEST.

The Pennsylvania Livestock Breeders' Association announces prizes for its Corn-Growing Competition this year. Valuable cups and cash prizes are awarded to the farmers who produce the best yields.

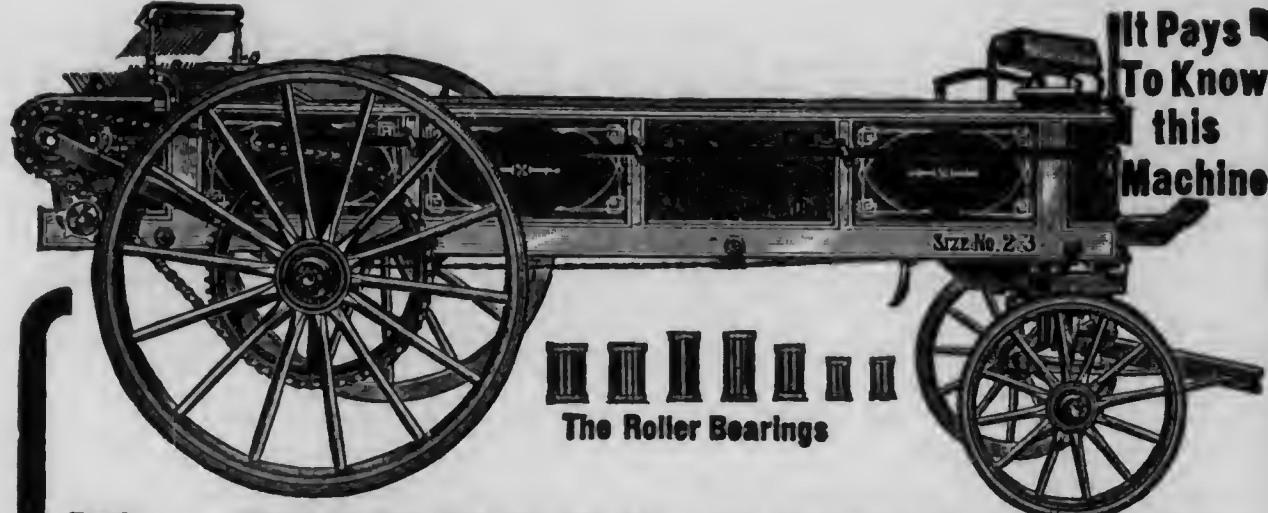
Yield counts 70 points, economy of production 20 points, sample of corn 5 points, and report 5 points.

Blanks for report are furnished by the Association. No entrance or other fees.

One acre must be planted and it may be a part of a field of corn.

The men who win these prizes will have a mighty good market for their crop, as farmers are all looking for the corn that yields the most.

Last year's first prize went to Crawford county, in the northwestern part of the state. For full particulars apply to E. S. Bayard, secretary, East End, Pittsburg, Pa.



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The SUCCESS SPREADER

First choice of everybody who knows spreaders. In use at nearly all Agricultural Colleges, Government Stations and Experimental Farms. Used at all Iowa State Institution farms. The only roller-bearing spreader. Recognized as being a horse lighter draft than others. Working parts strong and simple. No cog wheel gears. Power applied direct by strong chain drive. It cuts in half the time and labor of spreading manure and doubles manure value. Makes it possible to keep up soil's fertility with home-produced manure alone, no need to buy commercial fertilizers. You need a success spreader. It will make money for you—Is doing it for thousands of farmers. Success Book Free. Write for it to

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MAKING THE BEST OF IT.

If a man finds himself in possession of a farm somewhat different from his ideal, a worse thing could be done than to accept things as he finds them, and make the best of the situation.

By this I do not mean that he should settle down and do nothing to improve the situation—far from it; but a pretty good way is for the man to carefully look the matter over and adapt himself to things as he finds them, and go to work in earnest to improve matters in very many ways. If the farm is not adapted to one branch of agriculture, then study out what branches will be best to pursue, and make the most of it that you can, ever keeping in mind the importance of conserving the fertility of your farm; and ever adding to it, and also practicing intensive methods so far as is possible.

My own farm was most certainly a hard proposition to commence with, but I have "kept at it" with quite a degree of satisfaction, and I am sure that only a good beginning has been made, as to what can be accomplished. I have unbounded faith, almost, in the soil. I have seen wonderful results from well directed tillage, and I am quite confident that only a small per cent of the farmers realize the capacity of their farms as compared with what intensive tillage would do.

Instead of buying more land, most farmers should more fully develop what they already have.

Some years ago I heard a man remark that he could do nothing at farming, because he had only 30 acres of land; while on the contrary, from my acquaintance with the character of the soil, located only about four miles from the city of Corning, N. Y., containing a population of over twelve thousand, I considered it lack of energy, believing as I did, that with good management, very satisfactory results could have been realized from this little farm.

The big farm is all right, and to be desired in very many cases, but for a real, comfortable home, for the great majority of American farmers' families, the small farm is the real thing, and this kind of farm is being sought for now more than any other.—F. H. Dow, Corning, N. Y.

MASSACHUSETTS FRUIT GROWERS

Held their 16th annual convention, in Worcester, Mass., March 9th, and it was the best attended meeting of the society ever held.

This shows the renewed interest in fruit growing in the Bay State, as well as a realization that good is really gained by attending conventions of this kind.

Prof. Shaw, of Massachusetts Agricultural College, spoke at considerable length on the packing of apples. Good packers are scarce in the East, but the demand for better packed fruit will develop the packers.

Mr. H. S. Frost, of Arlington, addressed the meeting on spraying. Mr. Frost is recognized as an authority on the subject, and his advice to buy a pump and do your own spraying, rather than have it done as you would your threshing, is more economical and satisfactory, is worth looking into. Certainly it's the only way outside of special fruit growing sections.

One of the most timely talks for this part of the country was on renovating old orchards, by Mr. G. A. Drew, of Greenwich, Conn.

A New Jersey man, Dr. E. P. Felt, of Albany, spoke of insect pests which attack apples.

"Apples for Food and Health" was the subject of a most interesting and valuable address by Miss Moddocks, editor of "Good Housekeeping." If the millions of people in this country would really act upon Miss Moddocks' suggestion that the number of apples eaten should depend upon the ability of one's stomach to take care of them, it would mean a tremendous boom in apple growing, wouldn't it. But then Miss M. added the safety clause "and extent of his pocketbook."

The trouble is today apples cost entirely too much for an ordinary person to gratify his longing for half a dozen or so daily. I know I would be glad to make way with at least that many, and the more one eats the better able his stomach is to digest them and everything else he eats within reason.

One suggestion is particularly worth noting, and that is to pare the apple to get rid of an indigestible fibre covering. But I am afraid few of us will take time for that. Cooking, Miss Moddocks says, adds nothing to the digestibility of the fruit.

HOME BEAUTIFUL

Conducted by Georgie Middleton Fisher

HELPFUL HOUSEWIVES.

There are women who take all the help they can get, but never help anyone else. Sometimes, it is because they think they can't. They underestimate their own abilities, and imagine that every housewife must be in possession of their knowledge, simply because it is so well known to them.

Some refuse to tell the new discovery they have made, because it seems so simple they are afraid of being laughed at. Columbus couldn't have thought of that when he showed his friends how to make an egg stand on end.

Some people never find time to start a helpful suggestion along the domestic trail because they keep themselves busy spreading their own woes, or their fearful forebodings of a future that is sure to be worse than the past! There ought to be some adequate punishment for people who are so determined as they seem to be to make others unhappy, and I presume there is; the trouble is, we don't know how to deal it out as we should like to.

Then there are the housewives who manage to do things well, but who can never tell how, or why, or when. I don't know that we can do anything with them, except to watch them and take notes.

I know housewives who are past-mistresses in economy; but they would not admit it for anything we could offer them. Why? Simply because they are ashamed to let anyone know they economize. You couldn't make them understand that they have mastered an art to be proud of. If they could only realize what a desirable and praiseworthy thing it is to know how not to waste, they would be very willing to impart their information to their more ignorant sisters, but there's a twist in the corner of their cranium where Pride is located, and they suffer from what is known as "false pride." When one has it bad, there is no hope of recovery!

It is a blessed thing to be able to help, be it ever so little, and I like the housewife who says, "Now, perhaps this may help some one. Guess I'll pass it on. No harm done, if some one else has got ahead of me." There's a little "preach" in these few lines. Did you need it?

WASHING MADE EASY.

I have tried all manner of washing fluids, and many different washing machines, but have found nothing that helps me, on wash day, like a good soap and kerosene.

I make my own soap. It seems to me every farmer's wife should do that, for we can thereby procure an excellent article for almost nothing. It comes nearer to getting something for nothing than anything I know.

We have a large water barrel in which we keep all our hard wood ashes. It has a cover, so that the ashes are kept perfectly clean. It stands on a platform, having a groove which conducts the lye from a hole bored in the lower edge of the barrel to an iron kettle standing beneath the platform.

When soap-making season comes around, I pour boiling water into the barrel of ashes, and keep returning the lye that runs into the kettle until it comes out strong enough to float an egg.

For weeks I have been saving every bit of clean grease, and as soap-making day follows closely upon the butchering season, I have enough for a nice barrel of soap. All I have to do then, is to boil the grease and lye together, and strain it into the soap-barrel. I stir it once or twice a day, and in three days it is of the consistency of jelly and as clear as honey.

If it refuses to jelly, I add a little more grease—boiling it with some of the liquid from the barrel, and stirring it well when I pour it back into the barrel.

When wash day comes, I soak the clothes in cold water, wring them out, and put them into the boiler, which is a little more than half full of cold water, to which has been added half a teacupful of kerosene, and a teacupful of soap. If a scum forms on the water, when it begins to boil, I add more soap.

After letting the clothes boil fifteen minutes, I take them out into a tub, rub wrist-bands and neck-bands, rinse them through two waters, and hang them out. My neighbors will tell you they are as white as snow.

One great secret in washing is to use plenty of water. Dip out at least a part of the water in the boiler every time, before you put in more of the soiled linen, and change the rinsing waters frequently.

When, as sometimes happens, I am obliged to use hard water, I soften it with weak lye made from hard wood ashes. It is better to do this the evening before it is needed, so that the lime from the water may settle to the bottom of the barrel.

A little quick lime dissolved in the water will soften it, and is sometimes more easily procured than the lye.

I have a washing fluid which I sometimes use, and which I consider the best preparation I know—next to the kerosene. It is made by mixing together one ounce of ammonia, one ounce of salts of tartar, and one box of concentrated lye. Put this in a large stone jar, and pour over it one gallon of boiling water, being very careful not to breathe the fumes as you do so. Add half a cupful of this fluid to the water in which you boil your clothes, and treat them exactly as if you had used kerosene. You must be sure to keep this fluid where the children can not get at it. That is one reason why I do not like it.

There have been times in my career as housewife when I have not had strength to do a washing, and when it was simply impossible to procure help. The question of keeping clean then became most difficult.

I solved it by soaking my clothes over night in strong suds to which kerosene had been added. I put in only a few garments each night; but there was always something soaking in that tub.

In the morning the clothes were taken from the tub, and spread upon

the grass, without having been wrung out. It is surprising how the sun will draw out dirt, when you give it the opportunity.

At night the clothes were taken from the grass and put into another tub containing water in which I had put a little powdered borax, and the next morning were wrung out, and hung on the line. You see, I used a large amount of water for a few garments, and so was not obliged to put them through so many waters, which saved time and strength.

This reads like a tedious process, but it was, in reality, very simple. By giving a few moments each day to this work, I managed to do it without tiring myself at all.

The dish towels and hand towels were boiled out every day, in a pan placed on the stove while I was getting dinner. I used soap and kerosene and kept them white and clean without rubbing them at all.

It is my experience that a little careful planning will enable a housewife to do her work easily where a helter-skelter arrangement will drive her to nervous prostration, and her family to the neighbors.

A KITCHEN CHAT.

Cheap as crash toweling is nowadays, every kitchen should be liberally supplied with towels. Leaving out the question of fastidiousness, it is a menace to health for a whole family to be limited to one or two towels an entire week. In summer especially, a clean one should go up each day.

LADIES WANTED

—TO PURCHASE their groceries, soaps, etc., by our Factory-to-Family plan. We give you full value for your money and in addition the same value in premiums. We are also making a SPECIAL OFFER of FIVE EXTRA CERTIFICATES to secretaries of Club-of-ten. Write for free catalogue. Papworth Premium Co., 512 St. Marks Ave., Syracuse, N. Y.

Just Six Minutes to Wash a Tubful!

This is the grandest Washer the world has ever known. So easy to run that it's almost fun to work it. Makes clothes spotlessly clean in double-quick time. Six minutes finishes a tubful.

Any Woman Can Have a 1900 Gravity Washer on 30 Days' Free Trial

Don't send money. If you are responsible, you can try it first. Let us pay the freight. See the wonders it performs. Thousands being used. Every user delighted. They write us bushels of letters telling how it saves work and worry. Sold on little payments. Write for fascinating Free Book today. All correspondence should be addressed to 1900 Washer Co., 475 Henry St., Binghamton, N. Y. If you live in Canada, address Canadian 1900 Washer Co., 355 Yonge St., Toronto, Canada.

BRANCH HOUSES: We maintain branches at 391 Broadway, New York City; and 1113 Flatbush Ave., Brooklyn; and in all principal cities. We also make shipments from our warehouses in Kansas City, San Francisco and Seattle.



It makes no more washing than a couple of badly soiled ones would do, and they need not be ironed at all if hung straight on the line and folded smoothly when taken down. In fact, all clean clothes should be folded, not just tossed into the basket to become a mass of wrinkles; it lessens the trouble on ironing day.

Though far from being an advocate of the incessant use of the scrubbing brush and water pail, the kitchen is the spot above all others in the home demanding "eternal vigilance." There the housewife displays her skill and good management or her lack of thrift and neatness. "A place for everything and everything in its place," appears on the surface to be easy of attainment, but only the woman blessed with the sense of order ever reaches that happy state. Nor is her whole time taken up by the battle with dirt, far from it. Her house is better kept, and with half the outlay of strength expended by the other who cleans week in, week out, and nothing to show for it. To obtain the desired results of our labor, care, system, and intelligent thought are essential, unless we wish to spend our days at the ceaseless grind. The woman born without a sense of order is an unfortunate being, for much of her life goes in fruitless endeavor.

And so—to hark back to my text—as the kitchen is the hub of the home, let us have all the aids to making work pleasant that wit and invention can give us. Dishwashing can be a most distasteful duty or it can be viewed with cheerful toleration as a necessary evil. No person ever lived who could find comfort in a greasy foul-smelling rag and a disreputable frayed cloth as adjuncts to the task, yet they are in evidence all too often.

Expense need not deter us from having a bountiful supply of cloths for kitchen service, for the best parts of old undershirts, coarse shirts, and half-worn towels are always at hand where a none too well filled purse requires a watch kept on the pennies. Turn up a hem and run loosely in big stitches; the temptation is not so great to regard them solely as "rags," and they command more respect from the washerwoman. Do not hesitate to get out a fresh one and consign them to the fire when past their present-ability.

In my own home all old aprons, old dresses, sheets, nightgowns, and the like are torn into lengths, hemmed in anything but microscopic stitches, and put away for future use to wrap

Paint Without Oil

Remarkable Discovery That Cuts Down the Cost of Paint Seventy-Five Per Cent.

A Free Trial Package is Mailed to Everyone Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powderpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much.

Write to Mr. A. L. Rice, Manuf., 47 North St., Adams, N. Y., and he will send you a free trial package, also color card and full information showing you how you can save a good many dollars. Write to-day.

about a boiled ham, to cover pies and cake while cooling, for bread cloths and also—let me whisper this—for foot towels! If any woman who sees this has cast-off garments of outing flannel, let her proceed to make foot towels forthwith. They are so soft and nice and so easily kept clean.

On ironing day slip a roll of old carpet or piece of quilt under your feet if you will stand up to do it all. The smaller articles could be pressed from the vantage point of a chair, but many women prefer to endure the krick in their backs to making themselves comfortable about the work.

A step more here and there may be a trifle to the woman with servants at her beck and call, but if she has but the one pair of hands and feet to meet a thousand demands, the few odd steps saved have a deeper meaning. The mere journey from kitchen to pantry, or kitchen to cellar in the course of the day is a very Shylock after her reserve force. The best labor-saving device in a certain house is a bed slat above the kitchen table into which are screwed a dozen hooks, and where hang numbers of little tin buckets, containing tea, coffee, sugar, rice, barley, corn starch, etc. When empty they are replenished from the pantry. Near the stove is another slat similarly furnished with hooks, where hang soup strainers, a wooden paddle, iron spoons, forks, measuring cups, and the sugar, flour, salt and pepper sifters, while on the other side of the stove hangs a big salt box. In the pantry whatever can go into glass jars is put there, and all tin cans are labeled. The owner of this kitchen is a delicate creature with a family of thirteen and she long ago learned that steps count.

I remember a dear and wise old man whose favorite quotations were "cleanliness is next to Godliness," and "Order is Heaven's first law." As a child the frequent hearing of these words used to amuse me, but later years have given them a deeper significance, particularly as applied to the government of the home and in no place is the absence of those two things so noticeable as in our kitchens.

IS MANUAL LABOR DEGRADING?

There are many persons who really believe that the woman who works hard with her hands must, of necessity, be less refined than the lady of leisure. It brings a question before us women of the great middle class in which the majority are deeply interested. A large part of our lives must be spent in doing hard work. We know that to be inevitable, yet we do not want to be coarse and common in consequence, nor do we want to cultivate a dull resignation to our fate simply to avoid suffering.

Work, of itself, is not refining, but can it be degrading? Is it not passive, and so to be dealt with as we choose?

We all tend to become no larger than our occupation. The more absorbing our employment, the more closely we fit ourselves to it, until we sometimes find ourselves quite blind to all save the insignificant world we have made of our little daily cares and crosses. We soon get where we have no ideas beyond that little world, and there ensues a mental stagnation

that can never be conducive to refinement.

We must never forget that by elevating our work we are also refining ourselves in a corresponding degree.

How can we elevate our work? By doing it to the very best of our ability, with our thoughts on the beautiful results we hope for, rather than on the disagreeableness of the duties which are to bring those results about. By not resting content with the thought that we are doing that work as well as we have done it before, perhaps better than some others have ever done it, but each day striving to get a little nearer perfection, in some particular part of it. By keeping constantly in mind the thought that it is to be done, and we were placed here to do it, and that if we neglect to do so, or to do it to the best of our ability, someone else has got to work all the harder in consequence. By remembering that every task which we do well adds something to the world's happiness, and by never allowing ourselves to become so absorbed in the work part of our work, that we are blind to all beyond it. We will then be able to prove it possible for a woman to be a real lady no matter how coarse her work or how uncongenial her surroundings.

THREE REASONS WHY SHEEP SHOULD BE KEPT ON EVERY FARM.

(Continued from page 6)

This is a point which is too little realized, and too often overlooked. In the struggle now necessary against weeds, everywhere, it is short-sighted and unbusiness-like to neglect the constant and efficient aid which a small flock of sheep will give to the farmer in winning the victory.

"DUCKS AND GEESE."

The Reliable Poultry Journal Pub. Co., of Quincy, Ill., has recently completed the third edition of their book "Ducks and Geese," which has been revised to conform to the 1910-1915 American Standard of Perfection. It contains articles by the foremost duck and goose breeders, giving complete instructions regarding the breeding, rearing, feeding, housing, marketing and exhibiting of these profitable fowls. It is a complete guide to profitable duck and goose raising, and is illustrated by the world's leading poultry artists, Franklane L. Sewell and Arthur O. Schilling.

The price of Ducks and Geese is 75 cents per copy, postpaid.

"TEXAS RICE"

\$5.00 per hundred pounds, freight prepaid to any point in the United States.

We are striving to get our popular variety, Japan rice raised in Texas, direct to the Consumer at a price that will induce a greater consumption of rice. All food products are high, rice is low. Moral: "Eat Rice."

If 100 lbs. is too much for you club with your neighbors. Write us, and enclose P. O. or Express Order. Send for Cook Book, "Many Ways of Cooking Rice." Address:

TEXAS-LOUISIANA RICE FARMERS' ASSOCIATION, A. E. Groves, Sec'y, Houston, Texas.

Matters to be Thought Over

Free Meats, Free Hides, Production of Wool, Better Methods of Farming, Etc., Particularly with the Idea of Reducing the Cost of Living.

IO be a judge one must hear and know all sides of a case, and it's impossible to form an opinion worth while without being well posted. So far as feeding the millions of human beings in this country is concerned the farmers are the manufacturers and those living in cities, towns, and villages are the consumers.

We, as farmers, have our own ideas of our own business. They are based not merely on theory but on actual experience. We know only fairly well, the cost of production. We know all that is necessary about mortgages and paying interest. The long, hard grind that weakens physically, breaks the heart, and carries us to too early graves, has been ours. We have known lean years one after another. We have known what it was to feel that at last things were coming our way only to have the cup dashed from our lips at the culminating moment.

And all this past is the excuse for taking full advantage of the really prosperous times that are at last ours. We have waited for them; we have earned good times; we have the goods that people must have or starve; we could push prices higher; Washington knows our power at the polls, then why not get all there is 'coming to us'?

Blooded Stock has always stood for the farmers sense of fairness, and it is this splendid development of humanity that prevents the farmer taking undue advantage of anyone. And if it can be shown that free meat, free wheat, free lots of other things, will make the struggle to live, and bring up their families to be better citizens, more bearable to thousands who are living and working in cities, then the farmer will never be able to bring himself down to oppose them. It's curse enough in all conscience to live coupled up where the fresh breezes laden with odors of the country never reach, where a clear vision of the heavens is rarely seen.

We are great believers in knowing what the other fellow thinks, and are therefore publishing the following editorials and articles from the New York Sun, one of the best papers in this country in which to read matters of this kind, and generally a dignified, dependable paper. Now and again the Sun becomes bitter and allows feeling to shut its eyes to every sense of fair-play, as in its childish, persistent attacks of Mr. Roosevelt. When a fellow is too smart for even you the tendency to cover your defeat is frequently so strong that you become ridiculous.

We are printing these articles just as they appeared.

As to Putting Meats on the Free List Now.

The Hon. SERENO PAYNE is naturally enamored of the tariff act that bears his name, and when it is assailed or even mildly criticised he behaves like a choleric landowner repelling trespassing. He blurts out

things too that must irritate consumers who are sailing close to the wind, as when he attributes the high prices of foodstuffs to business expansion and increase of wages and clinches his logic with the remark that "all the people have plenty of money, which often tends to extravagance and waste." This is rubbing it in. But when Mr. PAYNE as chairman of the Ways and Means Committee, declines to take up Mr. FOELKER'S bill to place cattle and meats on the free list for one year, on the ground that "the tariff law would be open to amendment in every paragraph and schedule, and it would disturb business so long as the result was uncertain," Mr. PAYNE'S firmness must be commended.

To take this view of the matter it is not necessary to agree with Senator LODGE that the high prices complained of are in no degree due to the tariff. The choice has to be made between a possibly slight reduction in the price of dressed meats and the certainty of a business depression that would throw great numbers of people out of employment and diminish the wages of many others. Mr. PAYNE is right; let one breach be made in the new tariff law and a general assault would be made upon it all along the line. It has its flaws, which a tyro may point out, but also it has some good points; it is a part of a loaf anyway, and the fact is that business marked time while the law was being put together section by section, and as soon as the work was done and the law went into effect imports leaped up and the tone of busi-

ness improved. The law was made to endure for a while—certainly until another Congress convened—and manufacturers, importers and merchants would dread to see a single paragraph touched, and for the very reason advanced by Mr. PAYNE.

Diminished supply, combination, cold storage, middlemen's profits, cost of transportation, and the greater production of gold account in the main for the high prices of meats now prevailing, and those are optimistic souls who believe that if the duties were taken off live cattle and dressed meats there would be heavy importations and that a sharp decline in prices would bring general relief. An examination of schedule G of the Payne law shows that the rates on cattle and dressed meats are not high. For instance, the duty on "fresh beef, veal, mutton, lamb and pork" (paragraph 285) is one and a half cents a pound. In the next tariff law these meats may be on the free list, and also live cattle, swine and sheep; but it would be sheer folly to rip the rates out of the present law at this time and expose the country to a running fire of revision that would mean business depression, if not disaster.

A Possible Check on Beef Prices.

"Cheap beef," says Secretary Wilson, "is not the product of high priced land." The day of cheap grazing land in this country has passed, and the inference is plain that with it there passed the day of cheap beef. So recently as ten years ago vast herds of cattle were fed and fattened on the free ranges of the West, on the

public domain, at a minimum of cost to their owners. The market price of the range fed animals fixed the prices of the herds of the rest of the country. A large percentage of the beef supply of to-day is what is described by Secretary Wilson as "the product of two raw materials, corn and an animal body in a raw state, an animal unprepared for Chicago." There is no reason for belief that the value of the substance produced by this combination will be materially reduced in the years to come.

The changed conditions of production are in part at least responsible for the striking decline shown in the export figures of recent years. Exports of live cattle reached their maximum in 1904, with 593,409 head. Exports in 1905 were 507,806 head, and in 1906, 584,239 head. Then came a decline to 423,051 in 1907, to 349,210 in 1908 and to 207,542 in 1909. Shipments of fresh beef fell from 300,000,000 pounds in 1904, to 123,000,000 pounds in 1909. This decline continues. Cattle shipments for the first eight months of the current fiscal year were 117,125 head, as compared with 149,958 head for the corresponding period last year, and shipments of fresh beef have dropped from 99,917,689 pounds to 55,740,198. Compared with the hundreds of millions of dollars annually paid by the American people for beef and beef products the export trade in those articles is now a matter of very little importance aside from its influence in trade balances. Prices would be little or not at all affected if exports ceased entirely. From official estimates it appears that the annual slaughter in the United States is approximately 13,000,000 head, with a product amounting to not far from 6,500,000,000 pounds. Alongside such figures as these our export trade is quite insignificant.

It may be assumed that from one cause and another there will be fluctuation in beef prices, but it may also be assumed from known facts and from probable conditions that the tendency of prices hereafter will be upward rather than downward. There is at present no visible domestic influence even suggesting a permanent decline in prices or a check on further advances. The only possibility of such an influence or such a check seems to lie in a transfer of cattle to the free list on our tariff schedules, and the force of even that is uncertain. The argument in favor of free cattle is of possible benefit to American consumers. The arguments against it are a reduction of national revenue and injury to American interests. The first of these may be dismissed entirely for the reason that present revenues from that source are so small that they are not worth considering. The second involves some questions of fact and some of theory.

American cattle raisers meet any proposal for free cattle with assertions that such a proceeding would drive them out of business. They are frightened by a bugaboo. All the cattle that could be imported would not be enough to equal the variation frequently shown in the annual enumeration of the herd of the United States. The only possible source of shipment to this country are our neighbors of the Western Hemisphere and Australia. Shipments and

possible shipments from any South American country other than Argentina are very limited. Argentina and Australia sell chilled and frozen beef and not live cattle. Few live cattle would or could be brought from those countries, and it is even doubtful if the removal of our present duty of 1½ cents a pound on fresh beef would result in any large importation of that commodity from them. It may be regarded as certain that not enough would come to affect materially any American interest. The notion of enormous receipts from Argentina and Australia is false and foolish.

Our immediate neighbors, Canada, Mexico, Cuba and other nearby countries, remain as possible sources of supply. From those countries a few hundred thousand head a year might be obtained, and it is in such receipts that a possible protection to consumers is found, but no menace to producers. The total herd of all the countries within 2,000 miles of any America port would probably exceed by little if at all one-third the number of the cattle in the United States. Deduct from the number annually available for slaughter in all those countries the beef required for domestic consumption and the surplus that might be sent here as cattle or as beef would serve rather to steady prices than to reduce them materially. Canada's herd numbers about 8,000,000 and surplus export is a little over 200,000 head. Few Mexican cattle would be wanted because of the inferior grade of the stock. Cuba has a herd of about 3,000,000 and limited shipments could be made from there. While the Payne tariff was under discussion there were assertions that free hides would ruin some American industries and impoverish others, but they have not done so and will not do so. There would be no injury and there might be benefit in free wheat, free coal, free lumber and free cattle.

FREE HIDES.

Since the transfer of hides to the free list the imports of that commodity have more than doubled. Returns are at hand for the first eight months of the current fiscal year and comparison with the returns for corresponding terms of earlier years is possible. Hide imports for the first eight months of fiscal years have been as follows:

1905...	\$ 8,491,555	1908...	\$ 8 156,029
1906...	14,032,445	1909...	15,030,652
1907...	13,719,892	1910...	38,355,299

The cause of this enormous increase would be plain enough if the effect of removing the duty had been a reduction in prices or even had prices remained at their former level, but the figures show an average of 14¾ cents a pound for imports since the removal of the duty and 12¼ cents for imports during the corresponding term a year ago. The condition is explainable only on the ground of need of the goods. Some increase appears in the purchases of hides and skins other than cattle hides. Calfskin, goatskins, sheepskins and the skins of asses and horses were on the free list under the Dingley law. The record of these stands:

1905...	\$30,769,109	1908...	\$38,484,305
1906...	37,896,544	1909...	33,437,708
1907...	38,536,397	1910...	40,731,176

Reference to the export list shows some reflection of this increase in imports, although there is nothing in

price changes to account for an increased foreign sale. For the eight months of the fiscal year 1910 exports of leather show a gain of \$4,000,000 over sales of a year ago, exports of boots and shoes increased \$1,500,000, and harness and other leather goods increased \$350,000, a total of nearly \$6,000,000 in sales of leather and manufactures thereof. This little experiment in free hides has not yet excited any audible wail of ruin or even of injury to American interests. Chicago prices for hides show their usual fluctuation, the quotations of February being somewhat below those of last August, but the average for imported hides is well above Chicago quotations. The inference from the experience thus far is that free hides have either filled a want or stimulated an industry. The eight months of the current fiscal year show the importation of 430,000,000 pounds of hides and skins, as compared with 277,000,000 pounds a year ago. The handling and treatment of that additional 150,000,000 pounds means work and wages for many people. Nowhere along the line is there visible any interference with domestic supply. The "poor" cattle raiser whose industry was said to be greatly endangered by free hides is getting a higher price than he got a year ago, and there has been no reduction in the price of boots and shoes.

MORE PRODUCTION THE NEED

Consumption Is Growing Out of All Proportion With Production.

W. C. Brown, president of the New York Central Lines, does not fully agree with James J. Hill, who maintains that lack of capital and insufficiency of trackage and terminal facilities are the chief problems of the railroads to-day, and that these deficiencies constitute a grave menace to the prosperity of the country.

"Our most serious problem is not lack of transportation," said Mr. Brown, yesterday, "but lack of production. I can see no call for ocean terminals such as Mr. Hill sees. We are no longer producing the tonnage that formerly moved long distances to the seaports, or rather we are eating it up where it is produced. No doubt we will still need additional terminal capacity at our interior points, but as things are now we don't need more terminal facilities at the seaboard. No grain, for instance, is now coming to Boston or New York for export."

SAVE HALF THE LABOR

In sawing wood. You can do this and at the same time, cut more wood in a given time than in any other way by using



Table is mounted on grooved rolls, moves easily—cut of saw is down instead of against the operator as in old style machines. Must be seen to be appreciated. We also manufacture Drag Saws, Saw and Shingle Mills.

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Only Medium Price Hotel left in New York

Special attention given to Ladies unescorted

SPECIAL RATES FOR SUMMER
Our Table is the foundation of our enormous business.

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European Plan, \$1.00 upwards
Send for Large Colored Map and Guide of New York, FREE

DAN. C. WEBB, Proprietor
The Only New York Hotel Featuring
AMERICAN PLAN
Excellent Food Good Service

"The case is very simple. In the ten years from 1899 to 1909 the area of cultivated land in the United States increased 23 per cent. and the value of agricultural products 36 per cent. That would appear to represent a very fair increase in the average productivity of the land, but the fact is that the difference is largely, if not wholly accounted for by the large proportion of irrigated land brought under cultivation during the period in question.

"Now what had consumption of foodstuffs been doing meanwhile? As represented by population it has increased no less than 60 per cent. This failure of production to keep pace with consumption constitutes the real economic crisis of the time. Congress and Legislatures and grand juries are busy everywhere investigating the causes of the high cost of living. First they blame this and then they blame that, but in every case they have to get back to the one single fact that the country is not producing enough to keep up with its needs. In January we came within one-half of 1 per cent. a bushel of importing wheat from England, notwithstanding the duty of 25 cents a bushel. If it had not been for the duty we should either have imported wheat in quantity or had a break in the price of wheat as a consequence of threatened importations.

"The problem is not so much to get more people on the land as to train the people already there so that they will make the land produce what it will and should produce. It is true that we are reclaiming considerable areas, but this recovery is no more than the palm of your hand in comparison with the area under cultivation."

A LITTLE CHAPTER ON WOOL.

Only once do the records show an importation of wool greater than that of last year. The exception is the year 1897, when enormous quantities were rushed in during the final weeks of the operation of the McKinley tariff, under which wool had free entry. In spite of protection that the President has declared excessive, the wool clip of the country is only 10 per cent. greater than it was twenty years ago. In spite of high prices of wool and high prices for mutton our flocks show decrease in recent years. The year book of the Department of Agriculture gives the total number of sheep on farms in 1909 as 56,000,000 head of a unit value of \$3.43, as compared with 64,000,000 head of a unit value of \$2.63 in 1903. The theory of tariff protection is that under the system the protected industry will develop with at least an appreciable benefit to the country at large. The last few years of the sheep business furnish no confirmation of the theory.

The increased importation appears in all grades. The average receipts of clothing wool from 1904 to 1908 inclusive were 79,150,000 pounds, while receipts for last year were 143,800,000 pounds. In that period combing wools show an increase from 16,500,000 pounds to 32,100,000 and carpet wools from an average of 96,000,000 pounds to 136,000,000. The total importation of last year was 312,000,000 pounds or a little more than the normal domestic clip. That is, the sheep raisers of the country supplied only about one-half of the wool needed in domestic mills. Imports of manufactured woollen goods are not a heavy item in our trade.

BLOODED STOCK for April.

While there has been an increase of something like 50 per cent. in the last ten years, the total for 1909 was only \$22,000,000, about two-thirds of which is represented by cloth and women's and children's dress goods. The factory value of the product of domestic mills is not far from \$400,000,000.

The wool schedule is a tangle of complexities from which experts can and do figure support for any argument they may see fit to advance. Taking the total value of exports and total customs receipts for ten years, the rate appears as a little more than 40 per cent. ad valorem on the entire quantity. Because of wide difference in weight, in percentage of wool content and in grades of wool used, it is impossible to say what saving might be made in price of garments, blankets, carpets or other merchandise by reduction or removal of duties on wool. In a few all wool articles the difference might be considerable, but in most it would be small. The special advantage might be in a larger percentage of wool content due to lower price, yet even that is not certain. The world supply of wool is not unlimited, and any material increase would depend chiefly on price.

The plain inference from the figures is that while manufacturers have taken full advantage of the generous protection granted to their industry, the farmers have failed to improve their opportunity. Imports of wool are increasing far more rapidly than is domestic production. Presumably the theory of the duty is encouragement of the latter enterprise and discouragement of the former. If that is the fact the country is paying heavily for something it does not get. The farmers walk off with their benefit and make no adequate return. Their fellow citizens pay high prices for wool and for mutton.

MANURE VALUE AND MANURE SPREADING.

Few farmers fully realize the amazing dollar-value of manure. Note the figures below. Then think what a profitable by-product manure is. According to carefully conducted scientific experiments, the manure from one animal for a year, has the following values: Horse, \$22 to \$28; cow, \$28 to \$35. So it will be seen how enormous the loss is to farmers who waste the manure—or even a part of it.

The best method of taking advantage of the full value of the manure is to haul it out immediately and spread it with a machine. Spreading should be done at once in order to get the full value out of the liquid portion—the most valuable part of the manure. The best plan is to keep the spreader in the barnyard, where you can shovel manure into it right from the stable. Then as soon as you have a load, you can haul it out and spread it on the field, where it is most valuable. And that is where machine spreading proves its many advantages. A good manure spreader distributes a fine coat of manure over every part of the field—evenly, without waste and to best advantage. You know the objections to hand spreading—the hard work, the time it takes, the wasting of valuable manure by dropping it in piles and the losing of a good part of the value of the manure by letting it lie around in a barnyard corner.

BLOODED STOCK for April.

Almost any manure spreader is a paying investment. The good manure spreaders pay wonderful dividends. In addition to getting full value out of the actual manure, in addition to saving an enormous amount of work and time, the even spreading insures an even stand so the crop is harvested most easily. Farmers should not overlook that important advantage of the good manure spreader.

The proper use of manure—which means spreading it with a good manure spreader—has done more to increase production and decrease the cost of production than any other modern, farm implement. But it's the good manure spreader only that counts. The wise farmer does not take chances. He buys the spreader that is doing excellent work for thousands of other progressive farmers throughout the land. He investigates the I. H. C. line for instance, because he feels absolutely sure of getting a quality manure spreader when he chooses one of the I. H. C. machines. There's a size and style in the I. H. C. line to meet his requirements. Each style is being depended on by thousands of farmers to maintain the soil's fertility, insuring big crops. Each style is up to the high standard of excellence which marks every I. H. C. product. The materials are of the finest—woods being seasoned and carefully inspected—irons are accurately fitted. So I. H. C. spreaders are strong and durable. They do not bind or break under the hardest strains. They are exceedingly light in draft, due to the wide wheels and roller bearings.

The Cloverleaf is of the endless apron type. One lever controls the entire spreader mechanism—stopping and starting the beater apron—and changing the feed to spread thick or thin. A vibrating rake levels the load as it comes to the beater, insuring absolutely even spreading. The wheels are made of oval steel-staggered spokes and flanged, wide steel tires. The Cloverleaf spreads manure in any condition as well as all other fertilizers. The parts are few—the spreader is simple, strong and durable and its efficiency is of the highest.

Then there's the Kemp 20th Century—another I. H. C. spreader of merit. The apron forms the bottom of the box and is of the return type. The main frame is strong and substantial enough to support all the working parts. The beater is designed so that it thoroughly pulverizes the manure before spreading. There is no cramping, twisting or binding of gears, wheels or apron. It, too, is adjustable to spread light, medium or heavy—the changes are easily made and the entire spreader is so simple that a boy can run it. The front wheels are lower than the rear wheels and are set closer together. These are provisions to permit the wheels to cut under the box for short turning, to prevent deep rutting of the fields, and also to prevent tongue twisting and jolting. The Kemp 20th Century is furnished with wood or steel wheels as desired. It can be used for spreading any kind of manure or commercial fertilizer.

The Corn King is still another I. H. C. Spreader of high quality. The gear construction is remarkably simple—the gear teeth are deep, insuring perfect work at all times. It, too, is

DON'T JUDGE A MANURE SPREADER BY LOOKS

BECAUSE different makes of spreaders look alike—don't think they are alike. There's just as much, or more, difference between two spreaders of different makes that look alike as there is between automobiles of different makes that also look alike.

It's the way the spreader is built that counts. The way the power is generated, the materials, the design and moving of the apron—the way the power is applied—such things are what you must be careful about in buying a spreader. The best thing is to be sure of the makers—that they are absolutely experienced and reliable.

The market has become flooded with spreaders of slipshod quality—slapped together in a hurry—since the demand has grown so large, owing to the general recognition of the big money-making and time and labor-saving qualities of good manure spreaders.

The actual value in actual use of

I H C Spreaders

Cloverleaf Corn King Kemp 20th Century

has been proved by hundreds of satisfied farmers. Years of experience and study and practical testing go to make our 1910 patterns the very best to be had anywhere. You'll find strength where it ought to be. The construction simple, yet sturdy, with the right power in the right place. The draft is light—there's little friction—the axles and roller bearings are sand, dust, mud and water-proof.

I H C spreaders are made in all sizes, from 30 to 70 bushel capacity, and there is a style for every section and condition. Choose to suit your special requirements from the only complete line. Large, heavy, rapid working spreaders for big operations—spreaders for orchards, vineyards—in fact for every purpose.

See our local agent now for details; or, if you prefer, write us for catalogue and further particulars.



of the return apron type. It is instantly adjustable to spread any amount of manure per acre as desired. The vibrating rake insures even spreading. The whole spreader is remarkably compact and strong. Corn King spreaders are giving wonderful satisfaction everywhere.

If you are thinking of buying a manure spreader—and every farmer who hasn't one ought to be thinking along those lines—it is a good plan to see the local International dealer about the size and style that meets your requirements. I. H. C. spreaders are made in capacities from 30 to 70 bushels—for large and small operations. If you prefer, write direct to the In-

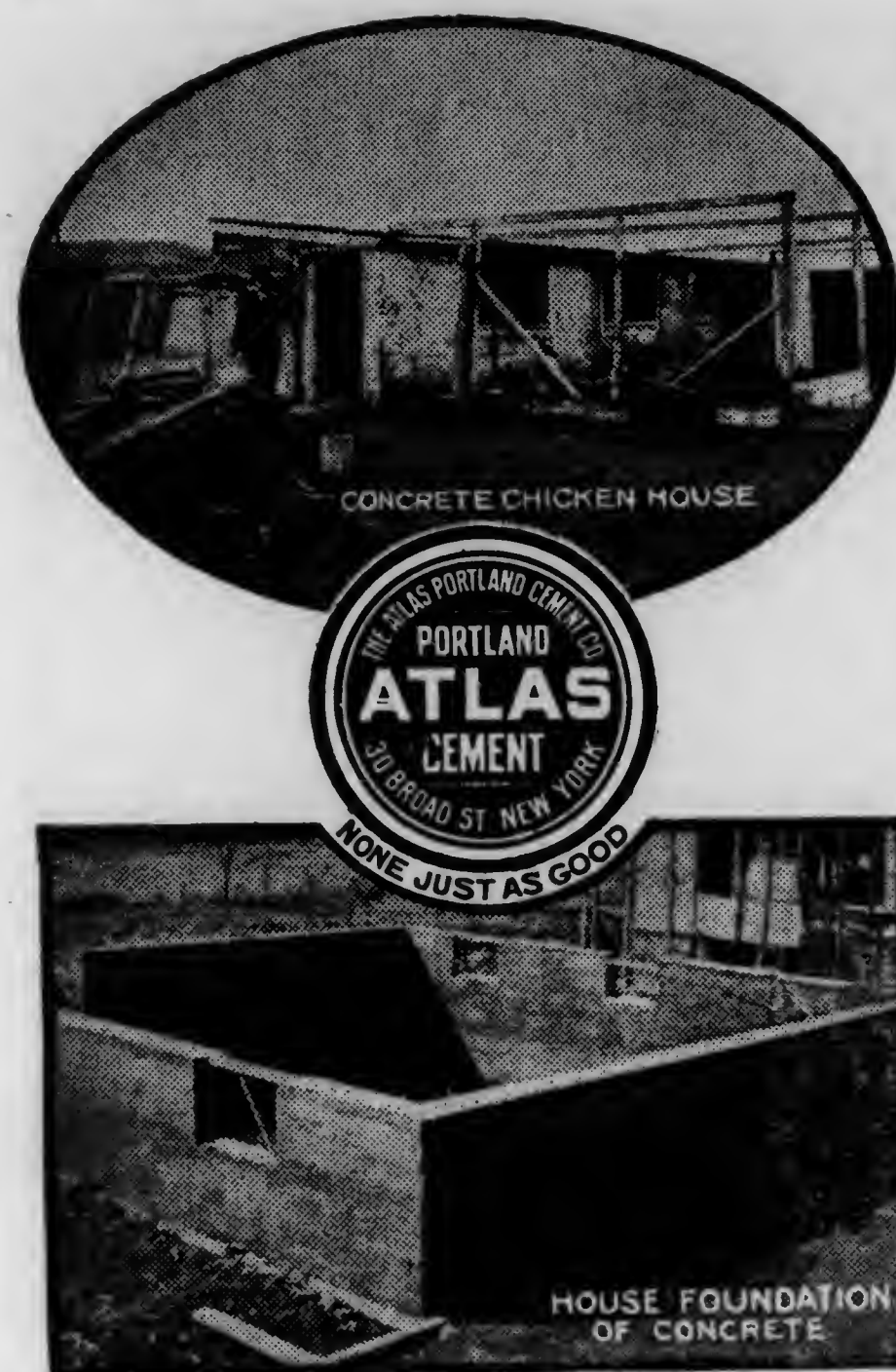
ternational Harvester Company of America—Chicago, U. S. A., for any definite information you want about the spreader you are most interested in.

IVY POISONING.

W. H. D., in the Rural New Yorker, says, do not use carbolic acid on fingers or toes for ivy poisoning, as it's apt to cause gangrene, especially if kept wet with saturated bandages, and covered up.

CACTI FREE

10 specimens free with each \$25 order. Dealers take notice—order at once. MRS. S. I. FATTISON, Wholesale Collector Cacti, Mesilla Park, New Mexico.



The above illustrations are taken from our Cement Book "Concrete Construction about the Home and on the Farm." We mail it free.

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Concrete construction is simple and easy to do successfully. Any farmer—with his hired man—can build a poultry-house, or a flight of cellar-stairs, or a house foundation, or any other farm structure. In the course of a year or two you can add greatly to the value of your farm property by putting in concrete improvements.

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There is only one quality of ATLAS cement manufactured, the best that can be made and the same for everybody. ATLAS Cement is made of genuine Portland Cement Rock and contains no furnace slag.

The U. S. Government bought 4,500,000 barrels of ATLAS for the Panama Canal. You may buy only one bag, but you get the same quality of cement the Government gets.

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"Concrete Construction About the Home and on the Farm." It is full of directions, illustrations and specifications that will aid you in building large or small concrete structures. Write for it today. It contains 168 pages and over 150 illustrations.

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ARSENIC IN LIME SULPHUR.

We are confident that some combination of lime and sulphur will take the place of Bordeaux Mixture as a fungicide. There can be no doubt of the value of sulphur in treating plant diseases, but growers must use great care in using arsenic with it. With some form of arsenic in Bordeaux we have a combination for treating diseases and leaf-eating insects, and some growers have concluded that the same things could be used with lime-sulphur. This is a mistake, for chemical combinations are likely to occur which will change the form of the arsenic so that it will scald or burn the foliage. This will happen when Paris green or arsenite of lime are used with lime-sulphur. Serious damage has been done to the foliage when these forms of arsenic were used. On the other hand, arsenate of lead in the lime-sulphur is safe to use, and is, in fact, the only form of arsenic which should be used. Prof. Whetzel, of Cornell, has issued a warning to fruit growers. They are likely to have trouble if they use any arsenic except arsenate of lead in lime-sulphur.

For those who have comparatively few trees or plants to spray, or who do not have the "knack" of mixing combinations of this kind, we believe it's very much wiser, from every point of view, to buy a recognized brand of Bordeaux Mixture, Arsenate of Lead, etc., and in our experience, Blanchard's Lion Brand is to be depended upon.

Gov. Stuart's Proclamation.

(Continued from page 3)

belief that forests regulate the flow of water in our streams. The destruction of our forests have intensified the floods and freshets which rob the soil of its fertility, closing the streams with silt and sand, filling up the navigable rivers and harbors. On the other hand, he who plants a tree or protects it from fire and other enemies, helps to make his State a better dwelling place, and makes a substantial gift to future generations.

"Wise legislative enactment has made it the duty of the Commonwealth's Chief Executive to name each year one or more days for the planting of trees and the dissemination of useful information in regard to their growth and economic value.

"Therefore, I, Edwin S. Stuart, Governor of the Commonwealth of Pennsylvania, do hereby issue this, my proclamation, designating Friday, April 8, and Friday, April 22, 1910, as Arbor Days throughout the Commonwealth, to be observed by the planting of trees and by other exercises that may be helpful in directing the attention of the people to the importance of conserving and restoring the forests upon the watersheds and of planting trees around their homes, upon the hillsides, and in the public parks.

"Two dates have been designated so that every section of the State may find a day for tree planting suited to its climatic conditions."

RELIGION IN THE CENTURY MAGAZINE.

The conductors of The Century Magazine state that in future that periodical will give considerable space to contributions which have especial value to all interested in the cause of religion. It is announced that there will appear, beginning in the May number, a series of papers on the revival of interest in Bible study, beginning with an article on "College Men and the Bible," written by Mr. Clayton Sedgwick Cooper, who, as Secretary, is in charge of Bible work in educational institutions.

Mr. Cooper reports that last year 32,259 college men, in 539 institutions of the United States and Canada, attended voluntary Bible classes.

This world-wide movement outside of North America will be described in future articles, and the Rev. Henry Van Dyke, D. D., is preparing for The Century a paper on "The Bible and English Literature."

That one of America's leading literary magazine proposes to give especial attention to religious matters is significant.

"I would have, then, our ordinary dwelling houses built to last, and built to be lovely; and rich and full of pleasantness as may be within and without, and with such differences as might suit and express each man's character and occupation and partly his history.—Ruskin.

THE BLOODED STOCK DAIRYMAN AND POULTRY RAISER



MAY.

Beneath these fruit-tree boughs, that shed
Their snow-white blossoms on my head,
With sweetest sunshine round me spread
Of Spring's unclouded weather;
In this sequester'd nook how sweet
To sit upon my orchard-seat;
And flowers and birds once more to greet,
My last year's friends together.

—Wordsworth.

Volume XVI

Number III

PUBLISHED MONTHLY AT
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May
1910

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ADVERTISING RATES—15 cents for each agate line, each month. 5 per cent. discount for cash with order. Average seven words to a line. Fourteen agate lines to an inch measure.

Printed on the first day of each month by L. H. Hitchler.
Entered at the Post-office at Oxford, Pa., as Second-Class Mail Matter, May 27, 1899.

OF INTEREST TO YOU

START MODESTLY AND AVOID SPLURGING.

It's the Successful Method in Farming, as in All Other Careers.

The greatest successes in farming usually come from those ventures that are begun upon a modest scale. The reason for this is entirely logical. Prosperity is a direct result of experience. It naturally follows, then, that the dearest experiences are those in which the losses are largest. For instance, if a man pays a large sum for a certain line of equipment on the farm and later finds that it is entirely unsuited to his needs, his money is gone and his stock or crops are largely a loss.

To be more definite, suppose a man is starting with alfalfa. He has studied the subject until he knows theoretically just how the land should be prepared, just how alfalfa should be put in to be profitable. He reasons that if this is true on one acre it will be equally true on half of his farm. Consequently, he starts out on a large scale, using all of the available land for that purpose. His first crop goes wrong and he not only has lost the expense and labor connected with his venture but he has also lost the use of the land. Had he begun with a small patch of from one to five acres he would have learned the same thing with a much less outlay. Probably the loss of the use of so small a portion would not have been felt and the expense incident to trying the crop would have been a much smaller item.

This is given as an illustration of the desirability of going slowly on the part of the young man who is dependent upon his farm for a living, and whose means are limited. The sure and safe method is to begin modestly and increase the operations as he grows in experience. Beginning with one or two cows and gradually increasing the size of the herd by purchasing and breeding judiciously

is better than branching out elaborately at the start. A man with a determination to succeed, with energy and ability to apply himself judiciously, would be justified in going in debt for dairy stock upon a modest scale. Indeed he would readily find men of means who would back him gladly but who would side-step such securities if he were plunging in his purchases.

Beginning modestly spells success. Plunging spells failure under ordinary circumstances. There is no more encouraging line of work than the development of various lines of farming or dairying. Beginning slowly and branching out from year to year is in itself extremely fascinating and for this reason it increases one's prospects of success.

WHY FARMERS MOVE TO TOWN.

In the course of a recent address, Prof. John L. Coulter, of the University of Minnesota, discussed the cause of farmers removing to the city in their old age. He ascribed three reasons for the movement. The first reason is that which is given by most young people, who say: "I left because I was sure that I could get bigger wages, and it is more interesting in the city." The second is that which is generally given by the middle-aged and older men and women, who say: "We want our children to be educated, and the city schools are far better than those in the country." The third is that which is given by both old and young far more frequently than either of the other two. Professor Coulter gives it as follows:

In the city they have paved streets and sidewalks; in the country we have muddy roads. In the city they have street cars, carriages and automobiles; on the farm we have work horses and wagons, or at best, a poor buggy. They have electric lights or gas in the city; we have the old oil

lamp or tallow candle. They have telephones, telegraph and free mail delivery, and they don't need them half as badly as we, yet few of us who live far apart, a long way from the doctor and others, have these. They have furnaces in their homes, and when they get up in the morning the house is warm and pleasant; we get up to find everything frozen and the house chilled. They have hot and cold running water and baths; we must go out to the old pump or melt snow and ice and take our bath in the dish pan or wash tub. They have toilet facilities and sewers. They have theaters, concerts and orchestras; we read about them.

Professor Coulter argues that the future and prosperity of the farm depend on farmers being able so to change conditions that these reasons will no longer be assigned. He urges that farmers join in organizing clubs—good, live, business clubs—with centrally located club rooms where the farmers may meet and discuss not only business matters, but enjoy unlimited social intercourse; also, that farmers, whenever possible, co-operate with city men in local undertakings and business enterprises. "For instance," he says, "let me urge that when a bank is to be started, to be supported by home capital, that fifty or a hundred representative farmers be invited to become stockholders, put in their \$5,000 or \$10,000, elect one of their number director, and join in the good work. This will only take enough of their time and money from the farm to help make business men of them. So, too, when a cracker factory, starch factory, canning factory or packing plant is to be established."

The point seems to be well taken, inasmuch as the more the farmers and the city men commingle, both in business and in social pleasures, the nearer will town and country be drawn together in a community of in-

BLOODED STOCK for May.

terests, while city conveniences will be more widely introduced in the country as a direct result. This is fully as important as building new roads and modernizing the farm home, for until the young folks of town and country become better acquainted, join more in one another's pleasures and pastimes, and visit in one another's homes to a greater extent, the equilibrium between the city and the country cannot be properly maintained.

In the meantime, as a starter, until the farmer does enter largely into business relations with the city man, as Professor Coulter urges, it would be well for him to inaugurate a better system of bookkeeping in his farm work. Too many farmers know the profits derived from an acre as compared with the expense of tilling the acre, and too few know the profits from their live stock as compared with the cost of feeding and keeping. A modest system of bookkeeping would easily determine the profits in all cases and would give rise to a liking for this kind of work which would make the farmer better qualified to meet the city man on equal ground when he shall have enlarged the field of his investment as suggested by Professor Coulter.

FOOD PRICES.

Conclusions of a Business Man Learned in the Milling and Wheat Trades.

Having been in flour milling all of my business life, I have naturally made a careful study of wheat conditions and wheat prices. When you say that the price of wheat in the United States is entirely regulated by the world's supply you are only partly correct. It is a fact that you can buy very good Canadian flours delivered here in New York, in bond for export, at \$4.50 a barrel, when flour of equal quality cannot possibly be made in this country for \$5.50 a barrel to-day. This should be sufficient proof for the contention of the advocates of the free introduction of Canadian wheat into the United States, that it will very much cheapen the bread of the consumers of the United States. The milling business of this country is managed with perhaps the smallest returns on the capital invested of any industry of like magnitude, and the difference in the price of Canadian flour as against that of American flour is not a profit to the miller but is only a loss to the consumer. If it were not for the duty of \$1 a barrel on flour and 30 cents a bushel on wheat our American people could now benefit by the cheap Canadian wheat as well as the South Americans and Europeans do.

The fact that the Canadian wheat exporters and millers have taken almost the entire export trade from their American brethren is another proof of my contention.

Only two years ago the prices in this country were so high, through damage of crops, that several millers paid the duty of 25 cents a bushel, imported Canadian wheat and sold the product in competition with flour made from American wheat at a profit. The duty paid on this wheat the American consumer had to pay, and it could have been saved to him if it

were not for our unreasonable tariff conditions.

If the American miller had access to the Canadian wheat fields he could also very materially assist the American consumer to cheapen food by the cheapening of the mill feeds, which would result in cheaper milk, cheaper beef and other meats. A larger majority of American farmers would benefit from this than now benefits from the duty on wheat. Beef in Windsor, Ontario, a city only across the river from Detroit, Mich., sells for from 8 to 10 cents a pound less than in Detroit.

Having spent all my life in the milling business, I am not much conversant with relative prices on other food products, but I heard only today that 150 sheep had been imported from Argentine, the duty and freight paid on the same, and sold in competition with American sheep, netting a large profit over the expense and risk. From this I judge that other life's necessities would also be cheapened to working people if our tariff were removed from all food products.

If newspaper writers who have the best interests of our working people at heart would be guided by information gained from business people who are giving all their thoughts to tariff conditions and not so much by the argument of politicians, our poor working people would soon so urgently clamor for free Canadian wheat that our legislators at Washington would have to give it to us and also give us access to other cheap foods which are now barred out by this imaginary wall.—Clement B. Stern, New York.

DECISIONS NULLIFY OLEO LAW.

Federal Commissioner of Internal Revenue Cabell, in testifying before the Appropriations Committee of the House early this month, declared that "selling oleomargarine for butter is not an offense." Mr. Cabell was referring to the effect of recent decisions. As the result of the evidence before the Committee, Chairman Tawney is endeavoring not only to defeat the pending bills for removing the tax on oleo but to amend a number of defects in the present law.

Indeed, according to an account in the daily press a few days after the hearing referred to above, Representative Tawney had "succeeded in having adopted a provision his committee inserted in the sundry civil bill by which the sale of oleomargarine, colored to resemble butter, will be made a penal offense." This report is at least true to the extent that a provision has been inserted in the sundry civil bill extending the internal revenue laws to cover the collection of the oleomargarine tax.

Commissioner Cabell told the Committee that there had been a steady increase in oleomargarine frauds and that the decisions of the courts, particularly in New Jersey, Kentucky, Missouri and Colorado, have deprived the government of the right to assess penalties and to enter and search premises without warrants.

It was supposed by the authors of the law which requires that revenue stamps be affixed to all oleomargarine colored to resemble butter, paying a

much higher tax, that the statute made it a penal offense to sell oleomargarine colored as butter, but according to Commissioner Cabell, the courts have so construed the law as to eliminate the criminality, and as a result the manufacturers of oleo affix the necessary stamps and sell to the retailers uncolored oleomargarine, and these in turn color the product and sell it as butter, and the present law is inadequate to reach such violations of the spirit of the statute.

CITY OR COUNTRY.

There is something radically wrong with the city when it fails to produce the men who carry on its business. The heads of practically all of the big business and manufacturing establishments are from the country or are the sons of farmers.

The cities either do not produce capable men or else they deteriorate rapidly. What counts in this world are the men and women, and history teaches that these are best developed on the farm and under country conditions.

After we leave this earth our money will count for little. Most of us will have little to leave, and none of us will have an amount that will compare in value to the record of a well spent life.

In the country, as in the city, the beautiful has its value in life building as well as in money grubbing. The home is more than four walls and a roof. Pretentious buildings are sought by those with the means to gratify their ambitions, and are desired by others, and yet the smaller home, beautiful with grass, flowers and trees, is the better place to live. Beautiful things should be a part of life and the majority of women desire them and strive for them.

Men fail to appreciate them in the same way unless they have a money value. Men enjoy beautiful things and generally admit that they would like to possess them, but their sense of beauty is not so highly developed as to make them strive for them for their own sakes.

The women of the farm home are generally willing to find time in their crowded lives to look after the flower beds, but these are ineffective and unsatisfactory unless they are displayed with a well cared for lawn and proper shrubs and trees.

It costs comparatively little time each year to care for the home grounds on the farm, and the satisfaction derived from the results obtained is big pay for such expenditures.

WHAT WE SPEND ON ROADS AS COMPARED WITH EXPEN- DITURES OF ENGLAND.

Those who claim that too much is being said about the necessity of spending vast sums on our roads should take notice of the fact that England annually spends 80 million dollars on her 150,000 miles of road, while the United States only spends 90 million dollars on over two million miles.

Meeting of Holstein Association.

The twenty-fifth annual meeting of the Holstein-Friesian Association of America will be held in Syracuse, N. Y., on Wednesday, June 1st.

THE COW AND THE DAIRY

THE INCREASED PART ICE CREAM IS PLAYING IN DAIRYING.

Making of some kinds of cheese and at least a substance called butter has been known in most parts of the temperate zones so long that "the memory of man runneth not to the contrary," but ice cream is a product a great part of which must be credited to the cow, that is of quite modern invention.

Persons not yet middle aged, can well remember when they first tasted this frozen dainty without which no picnic, dinner or, in fact, almost any kind of entertainment is considered complete. Yet so gradual has been the constantly increasing manufacture of this product that few persons will believe the records of the great amounts of it that are sold.

Only a few years ago the city daily papers were printing an alleged joke about some bumpkin who, generously ordered an extra "spune" with his dish of cream so that his best girl could help herself without bothering him. This well-worn joke is hardly admissible now, as the country boys are getting their full share of the cream, both really and figuratively.

But very few in country or city have any definite idea of the magnitude of the trade in this frozen product, the sale of which is increasing faster than that of any other of the things into which milk enters either wholly or in part.

A well known writer on dairy matters lately did a little private investigation along this line and found that one firm which was supplying a part of the retailers of this product in the city of Chicago was working nearly 150 horses constantly in delivering it to its customers. Ten 1,000-gallon tanks were used for storing the sweet cream in a right condition through cold storage so that they could, and often did, manufacture 10,000 gallons in a day, though this was by no means the maximum limit of their production, and this was only one firm which made no pretensions to being the only one in the business.

At first thought few would think of eating ices in zero weather, but when one reflects that all of the best and largest steam heated rooms are kept at practically the same temperature in winter as in summer, it is easy to see that "an ice," as it is politely called, may be indulged in at the end of nearly every dance. Nor is its use confined to the ball room.

In some form it may be found on the menu of nearly all the first-class hotels and restaurants. And in "the good old summer time" it is universally crowned king of all refreshments.

The recent invention of the edible paper cone in which it is often handed out makes its consumption both easy and rapid without either dishes or spoons; and puts it into the hand (literally) of the poor street gamine as well as into the red lips of the belle of the ball room. And the farmers who are lately getting their own—and if the said city dailies are to be

implicitly believed, a great deal more than their rightful share—are fast learning to use the real-genuine ice cream wherever ice is to be had, and it should be on all northern farms.

The rapid increase in the consumption of this dainty is at once evident to anyone who can and will remember back for even a score of years, and as the only right way of judging the future is by the past, its use is bound to be more rather than less. And why not, pray? It is comparatively cheap and if pure, fresh and used in moderation, healthful to almost everybody; while, unlike some other co-called "treats," its use does not create an appetite and a constant craving for "something stronger." Who has any better right to the dainties and luxuries which modern invention has given the world than the farmer who in all cases furnishes the foundation for all the good things we eat?

Now this paper is not to tell how to make ice cream; any cook book will do that, though the majority of dealers have certain tricks of flavoring that are in a measure trade secrets, of their own. These few thoughts are rather to encourage any doubting or weak-kneed teat-pullers that as long as children are born with normal appetites there is liable to be a growing demand for their cow products which is but very imperfectly realized or understood and is very seldom over-estimated.

DOES IT PAY TO LEARN BUTTER MAKING AS A TRADE?

A correspondent of an excellent farm paper writes to the editor as follows, and this is the reply: "Is the creamery business a good occupation for a young man to go into? Is it a healthy occupation? How long does it take to learn the business so that he is capable of taking charge of a creamery? What salaries do butter-makers usually receive? Are there any institutions where one may learn the trade and receive a small salary at the same time?"

"The creamery business is a good occupation for the young man who will make a thorough study of modern butter making; it is, however, an occupation that demands considerable intelligence and some scientific knowledge. The up-to-date butter maker must be a good machinist; the man who does not thoroughly understand manipulating complicated machinery cannot hope to succeed in the management of a creamery. He must be a good engineer and fireman, must have a knowledge of creamery book-keeping, and also have some understanding of bacteriology, especially as it pertains to the making of starters. This of itself is one of the most important requirements of the successful butter maker. The butter-maker should also have some business training, and by all means he must be 'a man among men' to inspire the respect and confidence of his associates. It can be truthfully said that the downfall of many of our creameries can be directly traced to being under the management of men of

small calibre. The buttermaker should also be strictly honest; there is so much that is left to him, as in testing and weighing, that he must be a man whose integrity is beyond question.

Buttermaking is not usually considered a healthy occupation on account of the dampness about the creamery. Rheumatism seems to be a common complaint among butter-makers, and the sudden changes from steam to cold drafts about the creamery render the occupation somewhat hazardous in winter. The wearing of boots with thick wooden soles has helped quite materially in decreasing rheumatism among buttermakers. A complete change of clothing as soon as his work is done is a practice which every buttermaker should follow to preserve his health.

The average salary of the Minnesota buttermaker is about \$75 per month; and with the scientific knowledge required in running a creamery successfully, and the tact needed in getting along with the various patrons, we believe this average is low enough. Better wages would bring better men into the business and the best man is not too good.

The time required in learning the trade of buttermaking depends very much upon the aptitude and intelligence of the apprentice. Some never thoroughly master the business, while others become capable of managing a creamery with two or three year's apprenticeship.

The best place to learn the trade is in a good creamery as second man to a first class buttermaker, and by all means avoid going into a creamery under a man who is not known to be a manufacturer of a first class product.

An apprentice will usually receive his board and perhaps a small salary from the start.

TWO NOTABLE EVENTS TO COME.

International Dairy Congress and The British Dairy Farmer's Association.

The International Dairy Congress, the last meeting of which was held at Budapest, during June of 1909, will be held next year in Stockholm, Sweden. The programme is in course of preparation, and the per-



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manent secretary is M. L. Gedoelst, of Brussels, Belgium.

Swedish dairying, which will be studied by the delegates on the spot, has a most interesting history. It goes back quite 700 years and its early records are very interesting. It was not, however, until the 16th century that dairying proper began, and ever since that time the progress has been rapid and continuous. The industry is fostered by the government in every way. There is, for example, a fine dairy institute at Alnarp, in southern Sweden, and 25 dairy stations throughout the country, besides quite a lot of traveling instructors, who go where they are wanted, from one dairy farm to another. The notable part of the Swedish dairy is the system of butter tests at export centers, such as Malmo and Gothenburg. At these places butter from every part of the country is tested, at least three times a year, so as to insure an even quality being shipped to the British markets.

The average of the many tests of Swedish butter has been found to be: Moisture 11.21 per cent., Milk fat 87.37 per cent., Casein .53 per cent., Mineral ash .89 per cent.

Another notable event in the dairying world will be the holding of the conference of the British Dairy Farmer's Association, from the 22d to the 29th of May, of this year, in Holland. There the delegates will also see some fine dairying and up-to-date methods of cheesemaking.

It is the intention of the conference to go to Gouda district, the home of Gouda cheesemaking; and they also intend to visit the historic town and neighborhood of Arnheim.

Dutch cows are known all over the world, but the system of Dutch dairying is somewhat different from that in vogue in other countries.

The Dutch have taken much trouble to make a good name for their butter and cheese in British markets, and the Netherlands Butter Act of 1900, amended in 1908, is one of the most drastic measures concerning butter control in Europe.

The reports of these two meetings will be of considerable interest to the dairymen of America and we hope to publish them quite fully.

PRIZES OFFERED BY THE HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA—SEASON OF 1910.

The Holstein-Friesian Association, through its Committee on Prizes, W. B. Barney, Hampton, Iowa, chairman, announces the following schedule of prizes for the fairs of 1910.

Unless otherwise specified, where money prizes are offered, the amount is applied to the general classification for registered Holstein-Friesian cattle. The cups are generally offered for finest display of registered Holstein-Friesians.

California State Fair, Sacramento, Cal.,Cash \$100
Colorado State Fair, Denver, ColoradoCash 100
Connecticut State Fair, Hartford, Conn.,Cash 100
Idaho State Fair, Boise, IdahoCash 100

Illinois State Fair, Springfield, Ill. In the Butter Test this Association will duplicate 50 per cent. of the prize money won by cows registered in the Holstein-Friesian Herd-BookCash 200
Iowa State Fair, Des Moines, Iowa. In the Butter Test this Association will duplicate 50 per cent. of the prize money won by cows registered in the Holstein-Friesian Herd-BookCash 200
Kentucky State Fair, Louisville, Ky.,Cash 100
Eastern Maine State Fair, Bangor, Me.,1 Cup 25
Maine State Fair, Lewiston, Me.,1 Cup 25
Frederick County Fair, Frederick, Md.,1 Cup 25
Brockton Fair, Brockton, Mass.,2 Cups 100
New England Fair, Worcester, Mass.,1 Cup 25
Michigan State Fair, Detroit, Mich.,Cash 100
West Michigan State Fair, Grand Rapids, Mich.,Cash 100
Minnesota State Fair, Hamline, Minn.,Cash 200
Missouri State Fair, Sedalia, Mo.,Cash 100
Nebraska State Fair, Lincoln, Neb.,Cash 100
Interstate Fair, Trenton, N. J.,Cash 100
Delaware County Fair, Delhi, N. Y. In the Butter Test this Association will duplicate 50 per cent. of the prize money won by cows registered in the Holstein-Friesian Herd-Book
New York State Fair, Syracuse, N. Y.,Cash 400
Ogdensburg Fair and Horse Show, Ogdensburg,Cash 100
North Dakota State Fair 1 Cup 25
Ohio State Fair, Columbus, OhioCash 200
Oregon State Fair, Salem, Ore.,Cash 100
Allentown Fair, Allentown, Pa.,1 Cup 50
South Dakota State Fair, Huron, So. Dak.,Cash 100
Valley Fair, Brattleboro, Vt., Butter Test,1 Cup 25
Vermont State Fair, White River Junction, Vt.,1 Cup 25
Washington State Fair, Spokane, Wash.,Cash 100
West Virginia State Fair, Wheeling, W. Va.,1 Cup 25
Fifth National Dairy Show, Milwaukee, Wis.,Cash 750
Wisconsin State Fair, Madison, Wis.,Cash 200
Alberta Provincial Exposition, Calgary, Alta.,Cash 100
F. L. Houghton, Secretary, Brattleboro, Vt.

WHAT IS A PEDIGREE WORTH.

"The majority of farmers under-value the meaning of a pedigree, although there are some farmers and not a few breeders who overvalue it. The pedigree, or the statement of ancestry of an animal, is valuable only in so far as it indicates that the animal is of pure breeding and comes

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from an ancestry of merit. If the pedigree is right, and the animal carries on its back an individuality worthy of that pedigree, we have an available prepotency upon which an adequate value can hardly be placed. It is the only sure means of shaping our breeds of live stock towards definite ideals. It has taken many years to establish our breeds of live stock as to definite types. If the live stock grower takes advantage of these breeds he has a short cut to live stock perfection.

There are fads and fancies in the pure bred stock business which are deplorable but not necessarily ruinous. For instance, there is the color fad, which has almost ruined some breeds. The black and white markings of the Holstein, the fawn of the Jerseys and the Guernseys, the red on the Shorthorns, the black of the Percheron horse, have often been attained at the expense of other more desirable qualities. A fancy ear on certain breeds of hogs has sometimes overruled in importance such items as bone, length and constitution.

These fads and fancies have sometimes been pursued to the point that the breeder has kept one class of stock for breeding purposes and another fancy class for show ring purposes for the reason that fancy points and utility have not always gone hand in hand.

In recent years, breeders have become awakened to the fact that some of our show ring requirements have been based on false foundations, and on every hand we see indications of saner breeding operations. A fancy ear on the hog brings no premium at the stock yards and a beautiful color puts no extra milk in the pail.

At our leading stock shows more and more stress is being laid on the fat classes. A grand champion steer or barrow is the "proof of the pudding," and we are glad to say that most champions we have ever seen have owed much of their merit to the potent influence of pure blood.

At our national dairy show a new class has just been announced to be known as the performance class, where both individuality and performance are to be taken into consideration.

We believe the time will soon come when there is even more credit in showing the results of pure blood than the pure blood itself.

We believe that farmers should avail themselves more thoroughly of

HOGS

our pure breeds of stock. A man is wandering in his live stock operations when he uses scrub sires. He is working towards a definite end when he uses sires that can be depended upon to produce certain results. With our present prices for pure bred stock there is little excuse for not buying them. We would insist, however, on getting individuality along with the pedigree. Let breeders know that you want market results rather than fancy points. Insist on quality and you will get it, for the reason that the average farmer is the ultimate market for all pure bred stock. And don't forget that it costs money to produce this kind of stock. If pure bred stock sold for the price of scrubs, it would be impossible to produce them.

THE REPORT OF THE COMMISSION CANADA SENT TO EUROPE TO INVESTIGATE HOG BREEDING.

The report has been published and we think parts of it of enough interest to our own readers to warrant our giving up space to it. A quotation from the introduction to the report shows the scope of the work accomplished:

"The Commission sailed from Montreal on June 18th, arriving in London on the 27th. The three following days were spent in gathering information in respect to Canadian and Danish bacon, and the trade in these products. They arrived in Denmark on July 2nd, and until the 16th, followed the itinerary mapped out by the Department of Agriculture in charge of Mr. P. A. Morkeburg, Live Stock Commissioner for swine and Red Danish cattle, who acted as guide and interpreter. Returning by way of Germany and Holland, a day was spent with advantage in a Dutch bacon curing and hog raising centre. Upon returning to Great Britain, Scotland received attention first, then Ireland and last England. In addition to studying swine-rearing as a commercial work, the Commission visited prominent herds of pure bred stock, and such leading agricultural exhibitions as the 'Highlands of Scotland, and the 'Royal Lancashire' of England. The Commission was well received everywhere."

The time was evidently spent chiefly amongst successful breeders and feeders. The section dealing with farms and feeders visited in England is most interesting. It is shown how a very general feeling of sympathy between farmers and bacon curers has been brought about and maintained. On this point the report says:

"This comfortable and very profitable state of affairs is the result of harmonious co-operation instituted largely by the packers, who conscious of their entire dependence on the supplies and condition of hogs, have done much to encourage production of the right sort. Messrs Harris & Co. have interested themselves in cheapening production, but in all they have done

have never lost sight of quality. Some years ago they made careful tests of breeds and crosses of pigs, and after determining the superiority of the Yorkshire cross, undertook to supply boars of this breed at the lowest possible cost and on easy terms of payment.

The next step was to encourage production in quantity and quality of pigs. To accomplish this the Wilts County Council was induced to take up a series of pig feeding experiments and demonstrations in cheap production. A committee of ten members, consisting chiefly of farmers, was formed. Contributions to carry on the work were made by Lord Lansdowne, whose estate joins Calne, the Harris Company and the County Council. A thoroughly capable and painstaking secretary was appointed to keep records, while a son of one of the leading farmers was entrusted with the actual feeding. The tests and demonstrations were carried on for five years, after which time the secretary and scientific adviser gave courses of lectures throughout the country and distributed reports."

The methods of feeding practised in the district referred to are fully described. In another section of England the report explains that a grievance between growers and buyers was overcome by farmers co-operating in the engaging of a general salesman.

After covering in a thorough way the various phases of the industry in Ireland, the report briefly reviews the situation in part as follows:

"The rearing of swine is a popular branch of Irish agriculture. Nowhere throughout the rural districts do the people despise the pig. Both extensive farmers and the more humble of the rural classes find it profitable to raise at least a small number of pigs each year. The frugal habits of the Irish peasant admit of no food refuse or damaged crop being wasted. The careful feeding of these, together with a greater or less quantity of purchased food stuffs materially helps to maintain many a small holding. The 'gentleman that pays the rent' means much more amongst the frugal Irish folk than perhaps any other class or race of people.

"The proximity of Ireland to the British market has for very many years proved a keen impetus to pork production. The great manufacturing centers of England require constant supplies of pork products. Irish packers and English merchants have long since come to regard each as indispensable to the other. The Irish packer has been wise in his day and generation. Not all the pork he ships bears his most cherished brand. Much Irish pork, such as that from old breeding stock, over fat hogs, and those that are too thin, are sold without identification, but no business man guards with keener jealousy the reputation of his special brands of bacon and hams than the Irish curer. From the great mass of supplies he selects most carefully the pigs that are to be cured for the best trade. The curing is done with equal care,

and at the end of this stage only the firm sides and lean, plump hams receive the first brand. On this kind of combination Irish bacon has established itself in Britain, and on a continuation of this the trade won is held.

"The Irish farmer inclines to follow a leader in whom he has confidence. This characteristic of the people is of great assistance to the Department of Agriculture in its work in aid of swine improvement. Already this has helped the quality of Irish pigs. Co-operation, too, finds a receptive soil under such conditions. This is getting a foothold in many parts of Ireland not so much in bacon curing as yet, but in the buying of supplies needed in the homes and on the farms, and the marketing of farm produce. Co-operative curing has commenced and will grow to the undoubted advantage of the Irish pig raiser, more especially in the direction of producing 'Wiltshire' sides for the British market."

Leading up to the swine rearing industry of Denmark, the report reviews the character of the country, the general systems of farming, the system of education and the habits of the people. It then describes the various steps taken to bring the breed up to its present high and uniform standard for bacon production. The parts played by the Government, the breeding centres, breeding societies, exhibitions, etc., are all gone into fully.

The treatment of the subject of feeding is most interesting and highly valuable for the Canadian pig raiser. It is shown that the system followed throughout is quite uniform and in accordance with the results of many years' experimenting. The character of food used varies with the age of the pigs. At the Government Experiment Station, Class 1 includes pigs up to 40 lbs.; class 2, 40 to 60 lbs.; class 3, 60 to 120 lbs., and class 4 120 to about 200 lbs., when they are finished. On this point the report says:—

"All foods are calculated in 'food units,' using one pound of grain, such as barley, corn, wheat, etc., as a basis. In roots and other green feed the food units are estimated on their dry matter, as, for example, 8 pounds of mangels, 4 pounds boiled potatoes, 5 pounds of lucerne or 5 pounds sugar beets equal one food unit. In the case of milk 6 pounds and whey 12 pounds are calculated to have a feeding value of one food unit. In other words, the feeding value of 1 pound of grain (barley, corn, wheat, shorts, etc.) has the same feeding value as 6 pounds of milk, 8 pounds of mangels, 4 pounds boiled potatoes, 5 pounds of sugar beets, or 5 pounds of green lucerne or green vetches."

The varying of the lists so as to secure the maximum of thrift and profit is clearly explained in the report. The report goes fully into the subject of co-operation, as it is applied to buying and distributing feed, and in the organization and operation of

packing plants, which are shown to be working with wonderful success.

Tables are printed showing the prices paid for pigs to Canadian and Danish farmers for the past seven years, also the selling prices in England of Canadian and Danish bacon, month by month, since April, 1904, until December, 1909. Another table shows the wholesale price of hog foods in Canada, England and Denmark during July, 1909.

An interesting feature of the report covering about four pages is headed "Lessons for Canadian Swine Breeders and Packers." This is divided into production and marketing. The former reviews the lessons gathered in the different countries, while the latter goes into the situation in Canada, the causes that led up to it, and the methods that have been found in the countries visited to overcome dissatisfaction between packers and farmers, and thus to insure a steady supply of the desirable class of hogs. The report ends with suggested remedies, as follows:

"Realizing the conditions which called for the appointment of the Commission, and having studied the methods of successful pig raisers in other countries, the Commission submits the following alternative remedies for what appears to be the chief barriers to a prosperous swine rearing industry:

1. The adoption, on the part of the packers, of an attitude of sympathetic co-operation between themselves and the producers, whereby every possible encouragement would be given farmers to increase the quantity and improve the quality of their hogs. This would involve a constant, earnest desire and readiness to afford every facility on their part in co-operation with the producers, to investigate and solve problems which may give rise to dissatisfaction. It would require the adoption of a careful grading of the prices of hogs through the year, guarding against discouraging low levels. It would require the control of buyers and the recognition of quality in the prices paid for hogs.

2. The co-operation of farmers in engaging a salesman for their hogs, as is carried out by the Eastern Counties Farmers' Association of England.

3. The adoption of the system of selling swine on the open market as applied to cattle and sheep. By the co-operation of neighbors car loads should be sent forward at regular intervals.

4. The establishment of co-operative packing houses as conducted in Denmark and in Ireland."

The report on the whole is a creditable production of some sixty pages of text besides a large number of engravings made from photographs.

SUGGESTIONS FOR A BEGINNER IN THE HOG BREEDING BUSINESS.

If I were to embark tomorrow in the hog business I would tonight figure up how much money I had to put into the business, as my bank account has always been limited, also my capacity for handling hogs, and if, upon investigation, I found that I

could buy only one hog sow, I would first build her a nice little house of the V shape, 10x12 feet, and portable, so I could move it at will, paint it nicely, total cost of such pen would be about \$12. Next I would fence about two lots of not less than one acre each, for my sow, to be sown in some kind of green forage most adapted to soil and conditions. Now I would be ready for my sow.

I would buy the best sow my means would permit, and of the most popular and best blood lines, breed her to a boar of equal merit, and, after being sure that she is with pig, I would have her shipped, and place her in her new home, then feed her plenty of good, wholesome food, so as to keep her in nice, thrifty condition, not, however, feeding her but little corn. I would then subscribe for a good swine paper, such as the American Swineherd, and I would read it closely from cover to cover.

Well, by this time I would be on the lookout for my youngsters, and when the time came I would be on hand to greet them and conduct them to a nice comfortable place until the last one made his appearance, then I would place them all with the sow after extracting the little, short tusks with a pair of jewelers nippers, and see that all got down to business. I would keep close watch over them for three or four days. The beginner will have to learn from experience as to know how to feed and how to care for the sow and pigs until weaned.

Now, as soon as the pigs are weaned, the beginner should buy a boar, which should be of the best blood, and finest type, or the finest individual he can get, and don't stand back on a few dollars as the boar is a help to your herd, and of course you want a good one. The best you can get is none too good.

Now, I would say to the beginner, look your pigs over and see if you have a good one, give it the best possible attention, attend the county and state fairs, show hogs, as it is one of the greatest schoolings connected with the business of hog raising. If you fit up but one pig, fit him to suit the eye of the most critical observer, and you are liable to make the old veteran on the front seat worry until the ribbon is tied. If you can win a few ribbons it will give you an insight as a judge of your business. Get acquainted, treat your rivals with courtesy, and you are on the road to success.

As your knowledge of handling swine increases and you have some nice pigs on hand, place an advertisement in some paper that has the right circulation and sell your pigs. Give a description of the pig you propose to sell. Never overestimate it, better leave something unsaid than to say too much. Be prompt in shipping, have the pigs registered for your customers promptly and at your own expense. Join the record association of your respective breed at your earliest convenience, as this will also give you a better rating, and you will find that it will be a paying investment.

Be honest at all hazards and join the swine institutes, attend the meetings as an educator and for the pur-

pose of getting acquainted. Never get the idea into your head that you know it all, for the older you get, if attentive, the more anxiously you will seek knowledge. Forge your way to the front by perseverance and strategy, and thereby increase your capacity for raising hogs. Be a man in the hog pen as well as out of it, and your name will soon stand in the front rank with those now famous in the business.

HOGS.
FOR SALE—Duroc and Poland China Registered stock bred sows. Service Boars \$13 to \$20. 40-lb. Pigs \$5. Also some choice Rhode Island Red chickens. WM. HARSHMAN, Thurmont, Md.

BARGAINS IN POLAND - CHINAS, BERKSHIRES and CHESTER WHITES
I now have a large stock of probably the best I ever owned. Cannot tell you all here, but I have Boars and Sows, all breeds, 3 to 6 months old mated not akin; sows bred and bears ready for service. Guernsey Calves and Registered Scotch Collie Puppies. Write for prices and free circular. This stock must go and will be sold. M. B. Turkeys, Barred and White F. Rocks, B. Leghorns and Beagle Dogs. P. F. HAMILTON, Cockranville, Pa.

FOR SALE—Some fine Yorkshire Pigs—no better stock in U. S. Just imported—new blood. A. A. BRADLEY, Frewsburg, N. Y.

MILCH GOATS.

MILCH GOATS—Information regarding this most profitable milk producing animal. Write G. H. Wickersham, 1242 St. Francis avenue, Wichita, Kansas.

POULTRY.

FOR SALE—Good honest stock eggs of Single Comb Brown Leghorns; finest strains. Cups and Blue Ribbon winners at Cumberland, Frostburg and Somerset. 600 fine large farm-raised birds for sale at reasonable prices. Twenty-five extra choice Light Brahma cockerels for sale. Write me. HERMAN SHOCKEY, Sand Patch, Pa.

REGISTERED DUROCS and Rhode Island Eggs, \$1.00 per 17. WILLIAM HARSHMAN, Thurmont, Maryland.

MISCELLANEOUS.

HORSES going blind Barry Co., Iowa City, Ia., can cure.

TROTTER MARE for sale—a handsome, black, trotting mare, and beautiful stud colt, very fast. Second cousin to Dan Patch. Price \$200. P. J. WYAND, Cumberland, Md.

FOR SALE—Two litters Scotch Collie puppies, sired by the noted "Flying Comet" and "Laddie Boy," out of bitches bred in the purple; perfectly marked golden sable; strong, healthy, farm-raised stock. Prices from \$10 up. FRANK H. TAYLOR, Reedsville, Pa.

SEND 10c for a sample copy of the largest, newest, race-horse paper published. P. J. WYAND, Cumberland, Md.

FOR SALE—Pure-bred Registered Holstein Bull. Ready for service this spring. Born April 6, 1909. Two-thirds white. Finely marked. Fine individual. Write for pedigree and price. MADISON COOPER, 101 Court, Watertown, N. Y.

OUR FEATHERED FRIENDS

Conducted by George W. Miller.

MOISTURE IN INCUBATORS.

The majority of farmers who are using incubators give little serious thought to the problem of supplying the right amount of moisture. They are not using a hygrometer in their machine because they think one too expensive or else too hard to understand. A hygrometer is an instrument that registers the correct amount of moisture in the egg chamber, when it is attained by the operator, and also tells how far from the right amount of moisture you are running when you are not on the dot. It is well known that incubation is a process of evaporation. But, while there must be a great deal of heat applied to the eggs the evaporation must not be too much or the chicks will die during the period of incubation.

I have operated a number of different makes of incubators and have yet to find one that automatically handles the moisture problem. There will always be a lot of good hatches with incubators that do their own moisture applying. This spring has been a very dry one in this locality and we have had to supply moisture a number of times to get the right amount, and how we would have been able to get good hatches without the use of some instrument to gauge the amount of moisture in the machines I cannot guess. I can say that I have seen very few hatches ruined because of too much moisture. I mean this is a common sense way, for of course one could not get good results by going to extremes.

A beginner in the art of incubation bought his first machine this spring. He put in a hundred and sixty-five eggs. The eggs were very fertile as they came from well cared for, free range flocks. Of these he tested out twenty, and hatched of the remainder, a hundred and twenty-eight chicks. Some twenty died in the shell. That is to say they stopped developing at some stage of incubation which made them look as though they were living germs of chicks and not distinguishable from those that were developing properly. It is needless to say that these chicks that died enroute were ones which were not strong enough to fully mature and hatch. The moisture in such a hatch as this was perfect. This operator knew that the moisture was lacking, for we told him that during such a dry spring as this he should apply some moisture, and he did apply it on the fifteenth and seventeenth days. He took a few blotters that were clean and filled them with water and then put these between two pieces of old newspaper and laid them in the bottom of the machine.

It might be well to say that all incubators need disinfection after each hatch. I use a small amount of Zenoleum in some warm soft water and wipe the machine out thoroughly after each hatch. If the machine smells a trifle of the disinfection it will not hurt the eggs. There is liable to form about the bottom of any incubator a few spots of mold that get green and

putrid and these must be wiped out as often as they appear. They are said to have to do with the white diarrhoea and I believe it. I know that if we keep the machine clean more eggs hatch and the chicks come stronger. If this bowel trouble comes from the feeding we have yet to learn its cause as we feed everything the chicks will eat and give them feed often and yet not too much.

Again, about moisture, I might say that it is well to have plenty of it in the room where the machine is at work. I believe that all makers of machines will say that it is not best to have the incubator in a room where there is a fire. A fire takes from the air so much moisture that it is hard to replace it.

Another thing, many people, who do not have the success that they think they should have from the eggs they incubate, attribute to the moisture problem the refusal to hatch of eggs which are not strong-germed, and which are so weak that they live but a short time, and if they mature are too weak to get out of the shell. Incubators have come to stay. All poultry folks know that, and the sooner we get right down to brass tacks concerning the operation of them, that much quicker will the results begin to improve.

WHY DO CHICKS DIE IN THE SHELL?

A subscriber writes: "I had 213 eggs in an incubator and hatched 100 chicks. There were chicks in almost every egg, apparently ready to hatch, but for some reason they did not get out, and some of them that did hatch had such weak legs that they could

not walk, but sat around and 'peeped' until they died."

Crippled chicks, those that are crippled when they hatch, are as a rule due to defective incubating. Chicks that die in the shell when just about to hatch may be the result of unequal temperature, lack of fresh air in and around the machine, lack of good condition in the breeding stock, etc. The weak chicks may be due to the same causes.

We would make sure that the incubator is operated in a well ventilated place, that the temperature runs even, and that there is sufficient ventilation in the machine itself. We would make sure that the breeding stock is in the best condition, neither too fat nor too thin on either side of the matings. If the females are found to be in good condition and the males thin, the latter should be fed by themselves at least once a day, given a variety of food and plenty of fresh air to breathe, and then look after the temperature as per article in this issue on this very subject.

CRUSHED OYSTER SHELL FOR POULTRY.

People who raise poultry usually have a view to the profit it brings. Where the best results are obtained there is money in the business. Experience gained by close observation indicates that fowl, especially laying hens, require certain foods and particularly lime to make them lay with any regularity.

Crushed Oyster Shells have been found most efficient in this respect. They contain the carbonate of lime in its natural form, which supplies the hen with the required amount of lime to make a firm, hard shell for the

THESE SICKLY-LOOKING CHICKS NOT FED OUR WAY

They wouldn't be wilted, forlorn and droopy as are these poor little fellows. What's the matter? Likely some one has been feeding a lot of table scraps, or sour bread, or some other indigestible mixture that is fermenting in their stomachs. Tomorrow the owner will find eight or ten dead, and wonder: "What killed my chicks?" Chicks are babies and must have baby food. That's why Puritan Chick Food is so successful in rearing chicks, keeping them well and holding down the death-rate. It just "fits" the interior mechanism of the digestive organs of a chick.

Puritan Chick Food (The Safe Kind)

has a delightful taste and odor to a little chick, because it is compounded of those very pure, wholesome and sweet elements that naturally attract it. Your little "pud-bails" will make things fly scratching, they are always happy and busy, when fed with Puritan Chick Food. It pays them. It will pay you, no matter how small your flock. It is foresight, wisdom, economy and profit, for you always to keep it on hand. It's true life insurance for your chicks, all other things being equal. We guarantee other things being equal. No fussing about it, either—your word is final. Puritan Chick Food is put up in 5-lb. boxes for 25c; 25-lb. bags \$1.00; 50-lb. bags \$1.75; 100-lb. bags \$3.25. Ask your dealer for it. If he hasn't it we'll supply you. Booklet free. Write now for it.

Puritan-American Poultry Food Mfg. Co.,
Bound Brook, New Jersey



eggs. That the free use of crushed oyster shells has been productive of extraordinary results is shown by the Belle Brand Crushed Oyster Shells put up by Louis Grebb, of Baltimore, ought to dispel any doubt of their efficacy. Duration of test 22 days; number of eggs, 33; weight of eggs, 1489.6 grammes. A similar test of 22 days, where sharp grits were fed, gave six eggs, weight 257.6 grammes. Here is afforded a convincing argument in favor of Crushed Oyster Shells. Their use insures eggs in greater number, heavier in weight and with firm, tough shells which reduce the chance of breakage in shipment. These crushed oyster shells are scientifically prepared to meet the needs of the physical condition of poultry. Their use in every poultry house and run would unquestionably bring beneficial and profitable results. A postal addressed to Louis Grebb, Baltimore, Md., will bring free catalogue.

PRESERVING EGGS IN WATER GLASS.

"Having bought a gallon of water glass, would like to have the following questions answered. How many dozens of eggs will one gallon of water glass preserve? Should the eggs be left in the mixture or just coated and put in a box and covered with bran or oats? In packing one or two dozen each day, should I mix just enough of the mixture to preserve them?"

With your gallon of water glass, which we will suppose is of the best quality, mix eight or nine gallons of water, which has been boiled and cooled. Put the mixture in a clean earthen jar which has been scalded with boiling water. Put in none but clean, fresh eggs and put them in at different times, if you desire, as they are laid. The jar should be placed in a cool, dark room and the eggs should stay in the mixture until wanted to use or sell.

Bulletin No. 71 U. S. Agriculture Experiment Station, reads:

"Use only fresh eggs. Let the liquid cover the eggs completely. Do not wash the eggs as it may injure their keeping qualities by removing a natural protective coating on the outside of the shell.

Packing the eggs each day is better than keeping them for several days.

Water glass diluted for preserving eggs will not injure the hands should they be dipped in while putting in the eggs.

The Cause of Soft-Shelled Eggs.

A reader writes to know why his hens are laying so many soft-shelled eggs. "They have all the lime, oyster shells, sharp grit that they need; clean water to drink; all the cut, green bone they want; milk, sometimes sweet and sometimes sour, every day. For grain they have barley and cracked corn, fed dry, in the morning and in the afternoon the same grain moistened. They had a little poultry tonic, some salt and red pepper in their food."

Your hens are laying soft shelled eggs because they have not a sufficiently varied ration. The oyster shells will make shell only when the grain fed furnishes the required amount of

nourishment. If you feed them oats, wheat and corn with barley, or even oats and wheat you will find that they will lay perfect eggs.

Any one keeping a small flock and living in a village or town where Puritan Laying Stock Food is on sale, will find it more advantageous to buy this mixed food. We use nothing else, and are ready to show our egg record against our neighbors any time.

NOW IS THE TIME TO WATCH LICE.

Watch out now for trouble from lice. Lice are always unprofitable boarders in the hen house, but they always become busy as warm weather advances. Especially look after the hens that are confined in close quarters with chicks or eggs. They cannot use the dust bath to rid themselves of pests and will need attention. Vaseline or lard rubbed on the heads will be sure death to the head lice, and good insect powder dusted into the feathers will drive away the body lice. But the mites which inhabit the coops and nests by day and steal forth at night to sap the blood of the hen or chicks must be treated in their own way. For these insects spraying must be resorted to.

Do not neglect to look after the roosting coops of the young chicks, as well as the larger buildings; they often get infested with mites.

No chick can thrive and furnish sustenance to a horde of vermin.

Keep the brood coops sweet, clean, and dry. No damp, foul coop is fit for young chicks to spend the night in, even if they have got past the tender age.

It is a good plan to shift all coops to clean spots once every few weeks. Better still is the plan of putting all chicks over two months old in colonies, on grass or alfalfa range. They will get more insect life, more good, green food, and clean, pure air.

This treatment also makes them vastly more independent and prone to hustle than the chick reared on the old grounds and allowed to stand about waiting to be fed.

THE CLUCKERS.

About every hen in the flock will want to set, now that warm weather is here, and generally two or three of them will crowd on one nest.

Don't let them remain, unless you are going to set them, and then only until you have another nest ready to set them on.

Too often the poor creatures are allowed to stick to the nest until they are skin and bones, and have wasted a large part of their laying season, because, if promptly removed, before their flesh is wasted away, and put in a darkened room, they will soon start laying again. But if simply thrown off the nest, not too gently either many times, every time you hunt the eggs, only to run back again. When you finally do take time to shut them up they are so thin that it takes weeks to get them back into laying condition.

And don't shut them up without a plentiful supply of fresh water. Do not feed at once, but do so after say ten or twelve hours.

Besides being humane it's profitable to treat your poultry and animals well.



Belle Brand Crushed Oyster Shells

Make Poultry PAY!

Tests show where these shells have been used—duration of test 22 days—number of eggs 33; weight of eggs, 1489.6 grammes. Where Sharp Grits were fed—test 22 days—number of eggs 6; weight of eggs, 257.6 grammes. This is convincing argument why every poultry house or yard should have them. They'll make hens lay an egg a day, with firm, hard shell—less liable to break in shipment. Belle Brand Crushed Oyster Shells supply Carbonate of Lime in natural form, making them superior to any other poultry food on the market. Write for Free Catalogue to LOUIS GREBB, BALTIMORE, MD.

THE RUN.

If you heeded our advice, early in the spring, you fenced off one-half your run and sowed to oats, and now have the finest sort of green food for your chickens, the most economical supply and a run in which they will take endless delight in scratching from daylight until roosting o'clock.

As soon as you have turned them in plow up, or spade up if too small to plow, the old run and sow it to oats or barley, and it will be ready by the time the other half is scratched to biddy's heart's content.

Keep the little turkeys in until the dew is well dried up.

An old-fashioned but excellent food for the little "turks" is corn meal moistened—not soppy—and well mixed with chopped green onion tops. We know some of the most successful raisers who have fed this for forty years.

And then we know others who raise their turkeys and ducks on nothing but Puritan Chick Food, and green food.

\$350 a Month--500 Hens



ALWAYS FULL BRIGGS' SYSTEM DOES IT

Edgar Briggs did it! BRIGGS, the Thomas A. Edison of the Poultry World—the man who wrote "Profits in Poultry Keeping Solved"—fourth edition just now ready. No branch of mercantile business or farming pays the profit that poultry guarantees under the Briggs system.

discovery alone is now saving farmers and poultrymen thousands of dollars daily. He feeds his hens "poultry ensilage"—a processed feed that makes them lay regularly, even in winter, when egg prices are "out of sight." Briggs tells how to make the ensilage at not to exceed 15c per bushel. Briggs' Book contains literally hundreds of secrets, making poultry raising for every one a profitable business or side line.

FEAST OF FACTS, \$1.00—For a short time only we offer Briggs' Book "Profits in Poultry Keeping Solved"—100 pages, fully illustrated and nicely bound, including "Secrets in Poultry Culture"—the many secrets used by Briggs, and one year's subscription to "Poultry Success," the leading monthly poultry journal. If you have never read it, borrow a copy from your neighbors, or write for samples. ALL THE ABOVE ONLY \$1. Write to-day.

HOSTERMAN PUB. CO.,
Briggs' Desk 57, Springfield, Ohio.

FRUITS AND VEGETABLES

THE GARDEN FOR MAY.

Plant everything, about, that is not already in the ground, and take care of it, as per instructions published last May. If we added to this, we would simply have to repeat what we wrote last May, and that might seem like imposition to many of you.

Gardening is largely routine, varied only by the difference in seasons and weather conditions, and yet the delight in having a good garden, one that you have worked in year after year, comes from the constant expectation and surprise.

You prepare the soil, select seed, plant according to instructions and experience of yourself and others, and then, all you can do is to water a little if the rains do not come, and watch and trust in Him who planted the first garden, and who alone giveth the increase.

And, the delight and satisfaction when the crop is good. Disappointment when it's bad, but yet comfort in knowing that it's not too late to try again, with the same sort, or with a later variety; that all is not lost.

It's like the children at Christmas time, waiting to see what old Santa Claus has put into their stockings or hung on the tree. Each year, the expectation is just as keen and the enjoyment just as great. A garden keeps one always young, and always close to better thoughts. Try it.

MAY SPRAYING.

Apple—Two to three weeks after blossoms have fallen, with Bordeaux Mixture and Paris Green.

Cherry—If rot has not ceased with first spraying, repeat in two weeks with copper sulphate solution, weaken and repeat again, if necessary.

Currents—Give another dose of pyrethrum or hellebore, if worms are still bad, but not within three weeks of ripe fruit.

Gooseberry—After leaves have been out about a month, for mildew and worms, spray with sulphide of potassium on English varieties. Repeat two weeks later if necessary, and after crop is picked, with Bordeaux Mixture, if mildew persists.

Grape—When fruit has set, spray with Bordeaux Mixture and Paris Green, and repeat in two weeks with Bordeaux if disease is evident.

Peach—Repeat with Bordeaux and Paris Green two weeks after fruit has set if necessary, and again in two weeks.

Pear—Three weeks after blossoms fall with Bordeaux and Paris Green for leaf blight, scab, psylla, and codling moth, and again in two weeks if needed.

Plum—Two weeks after fruit has set with Bordeaux and Paris Green, and again in two weeks if necessary for black knot, rot and all fungous diseases.

Potato—Repeat when necessary with Paris Green for bugs, and use Bordeaux Mixture as protection against blight.

Quince—Two weeks after fruit has set with Bordeaux Mixture and Paris

Green, repeat two weeks later with weak solution of copper sulphate.

Raspberry and Blackberry—When canes have attained a good growth, spray with a weak solution of copper sulphate.

One spraying is better than none, but it is the regular, continuous following up that produces the results that are possible through spraying.

Don't Be Too Early.

Do not set out tomatoes, egg plants and peppers too early. Don't be too anxious to get melons planted. Nothing is gained by taking long chances on late frosts, or in trying to make certain varieties grow in cold weather, when you know they thrive only when it is warm.

This spring has been almost unique. So delightfully warm weeks ago, and now so cold and wet. Fortunately, the East escaped the heavy frosts that damaged fruit and wheat of the West.

You can, however, have the soil all ready to plant when right weather does come.

SOIL MOISTURE AND EVAPORATION.

Usually the moisture content of a country is measured by inches. Such a measure taken by itself is not a true one. Moisture is influenced very materially by the evaporation. It may not be correct to say that it is influenced as much by evaporation as by the precipitation, but it is influenced materially by evaporation. This means that a certain number of inches of rainfall in our state, and sometimes in one part of a large state, does not mean the same thing measured in inches as it does in another state, or another part of the same state.

Unquestionably moisture in the soil is much influenced by evaporation and the degree of the same. It is influenced greatly by the humidity of the atmosphere. There can be no question but that a moist atmosphere tends to draw less moisture from the soil in proportion as it is moist. The more dry the air, therefore, in a country, the more rapidly will it take moisture from the earth.

The velocity of the wind influences evaporation. In the days of the re-

ceding deluge the agency of the wind was called in to expedite the drying up of the waters. In prairie areas the velocity of the wind is considerably greater than in other areas, and, therefore, evaporation is proportionately greater.

The character of the soil also materially influences the loss of moisture, not only in its passage downward, but in its passage upward, and its escaping into the air.

A soil that cracks readily on the surface after a rain, will lose moisture much more readily than one of a different character.

The difference in the degree of evaporation is so great in certain areas, that the subject is worthy of the most careful experiment, with a view to finding its exact measure. This will unquestionably be done in the years that are at hand. It would not be difficult to find this measure, at least approximately. This could be done by measuring water evaporation from lakes or reservoirs. This, of course, would not be a true measure, but it would throw much light on the subject.

The question was impressed on my mind as never before while planting some alfalfa plants on the experiment farm at Chester in Montana. In one instance a furrow was opened to receive the plants. It was about two hours before it was closed up again. It was surprising to note how much moisture the soil lost in those two hours.

Farmers may be ready to conclude sometimes that they hear overmuch about the necessity of farming land frequently, and of harrowing and cultivating it on the surface to keep in the moisture. They do not hear half enough about it. If the rainfall in a certain area is only 15 inches, or less, and if the evaporation in the same area is 50 per cent, greater naturally than where the rainfall is 45 inches, it becomes a question of first importance to keep within the soil to the greatest extent practicable all the moisture that falls. In fact, viewed in its true light, the retention of moisture in the soil is the all important question of handling it.



Elkhart Buggies

are the best made, best grade and easiest riding buggies on earth for the money.

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May We Send You Our Large Catalogue?
Elkhart Carriage & Harness Mfg. Co.
Elkhart, - - - - Indiana



Save \$30

NO DANGER FROM INBREEDING CORN.

Every farmer in this favored land of ours is just now thinking more about corn than anything else, and it is now that I want to talk to them about it. What I write is intended especially for the farmers, those who have acquired their knowledge of corn from experience, observation and independent thinking for themselves, and have not become prejudiced by what some theorist may have said who never raised a stalk of corn in his life. Any intelligent schoolboy on the farm can experiment in the way I suggest as well as a professor.

Here is my method: Select the one best ear to be found in the district where the corn is to be grown, and that can be done best at a corn show, and plant the grains of that ear in a plot as far as possible from any other growing corn, in good soil well prepared, and cultivate it well. When the tassels begin to appear visit the corn every day and cut the tassels from all the stalks that do not show perfect vigor and good quality, leaving no tassels except on the very best stalks.

Leave the corn on the stalks as long as possible to perfect the germ and its food. When there is danger of hard frosts pick all the ears from all the stalks with tassels on them, and hang them up under cover with their husks on. When cold weather approaches store the corn in a dry place where it will not freeze to impair the vitality of the germ.

In the spring husk the corn and select the one best ear for seed. Plant the grains of that one ear and proceed in every particular as before, and continue the round until all the ears show the qualities you wish to produce, and every grain on the ears have equal breeding power. This is my whole method.

Now for the justification of this process. I begin with one ear because it is easier to breed the worthless stock from one ear than from ten ears. I use pollen from none but the best stalks because weak stalks will breed degenerate corn. Selecting the best stalks to bear pollen to breed the ears from needs no justification or explanation to the intelligent readers.

To breed the best to the best is the only way to improve the quality of any living thing. The inbreeding is justified because nature placed the tassels and the silks in their relation to each other to promote inbreeding, and that relation existed during the evolution of corn, and experience has proved it to be the best.

Every breed of corn that has proved by experience of the farmers to be best was originated by selection, and then by being raised on the same farm exclusively for thirty or fifty years where it was compelled to inbreed. Any man who plowed corn as a boy in Indiana remembers that in that climate in tasseling time there was but seldom a breath of air moving to interfere with perfect inbreeding. And it was there that the corn was grown that the judges at the National corn show at Omaha decided was the best corn in the world, so far as they knew.

To expect to grow improved corn on mutilated stalks is unreasonable, and Kansas learned by experiment

Cutaway

DOUBLE ACTION HARROW & CULTIVATOR FOR 100% CROPS

With this tool more different kinds of work can be done, with less effort, than with any other. CLARK'S is the only Disk Cultivator that completely embodies the double action principle. It will do the work of several disk machines that would cost you several times as much, and do it more thoroughly, because it has 4 gangs instead of only 2. The draft is always from center—suitable for 2 light horses. Equipped with Extension Head and Jointed Pole, and when so ordered two large disks for listing are supplied.

Send today for our free Book, "Large Hay Crops."

CUTAWAY HARROW COMPANY,
808. Main St., HIGGANUM, CONN.

that detasseling was positively injurious to the ear on that stalk. No breed of corn has attracted the attention of the farmers that was originated on mutilated stalks.—John P. Smith, Stanley Co., S. D.

DISKING FOR ALFALFA.

The foremost method of cultivating alfalfa is with the disk harrow, one of the most excellent farm implements ever invented. Alfalfa sown in the fall is almost invariably helped by disking the following spring, with the disks set quite straight, so as not to cut the crowns, but to split them. It is usually well to follow this disking with a tooth harrow, with its teeth set straight. Occasionally in a dry summer the disk may be used to great advantage after the second, and possibly the third, cutting also. Many disk their alfalfa fields every spring, and some after each cutting, others doing so only once in two or three years, owing to weather conditions and the conditions of the alfalfa. In some instances the common harrow is used instead of the disk.

The disking has several beneficial effects. It splits and spreads the crowns, causing more and consequently finer stems to spring up, affording hay of the most delightful quality, easily cured; it loosens the soil about the crowns, conserves moisture and destroys weeds. There need be no fear of killing the plants if the disks and the harrow teeth are set straight and weighted or otherwise adjusted to give direct and steady forward movement. As an implement for the cultivation and invigoration of alfalfa the disk harrow has no equal, and its frequent use by those who know it best is deemed quite indispensable. From Coburn's "The BOOK OF ALFALFA."

In this connection the booklet mailed to anyone by the Cutaway Harrow Company, is well worth reading.

THE WHEAT OF THE WORLD

Is not all produced in the north-west and Canada, although the United States altogether grew about 737,000,000 bushels last year—almost as much as Russia, whose crop was 783,000,000. France grew nearly half as much on her little farms, 356,000,000; and India almost 300,000,000 bushels. All this does not include Argentina, Canada or Africa. The entire output of North America is estimated by the same government reports at 911,000,000 bushels; Europe, 1,143,000,000; Asia, 430,000,000, and South America at almost 200,000,000.

FARMERS RAISING THEIR OWN BROOMS.

In view of the high price of brooms, 40 or 50 cents and sometimes as high as 55 cents, the farmers of this part of New Jersey have gone back to their old side industry of raising broom corn. It takes very little land to raise enough of the corn for a year's supply of brooms. The seed, fed to the chickens, more than meets the cost of the crop.

Plants have to breathe as well as animals. The quickest way to kill trees even, with witch grass, etc., is to smother the roots in any way. We once stacked a few loads of hay around a tall tree for a few months and the tree never leaved out again. Loosen the surface around any plant or young tree you wish to make rapid growth.

There is no way on earth to put land in so good condition as to scatter barnyard manure over clover sod and turn it under. If a pretty good growth of green clover can go under with the manure, so much the better. No matter if the clover is thin, the next time it is sown on this land it will do much better. Get a little scattered about the farm, no matter what the price of seed is. It's nature's fertilizer.

FROM JERICHO TO BETHLEHEM.

Mr. Robert Hichens and Mr. Jules Guérin made special trips to Palestine to gather the material for the articles and pictures now being published in the "Century's" "The Holy Land" series; but they did not travel together, nor consult with each other till the work was finished. Yet text and paintings are in perfect sympathy. The June "Century" will contain the fifth paper of the series, impressions of the journey from Jericho to Bethlehem—Jericho, "place of fragrance" and "city of the moon." The color pages, from Mr. Guérin's paintings, will show the River of Jordan, the Dead Sea and the mountains of Moab, and the wilderness of Judea.

NO WISE MAN WOULD BE WITHOUT KENDALL'S.

Watrous, Sask. Sept. 1, '09.
DR. B. J. KENDALL CO.,

Dear Sirs:—I find your medicines the best for use on the horse, and no wise man would be without it. Please send me your valuable little book A Treatise on the Horse and his Diseases.

Yours truly,
Shannon Armstrong.

HOME BEAUTIFUL

Cond. uted by Georgie Middleton Fisher

GO TO THE ANT, CONSIDER ITS WAYS AND BE WISE.

Under the roofs I lie whole days, Watching the steady household ways: Innumerable creatures come And go, and are far more at home Than I, who like dumb giant sit Baffled by all their work and wit, No smallest of them condescends To notice me; their hidden ends They follow, and above, below, Across my bulky shape they go, With swift, sure feet, and subtle eyes, Too keen and cautious for surprise.

One thing alone I hope, desire; To make my human life come nigher The life these lead whose silent gaze Reproaches me and all my ways; To glide along as they all glide, Submissive and untrifled. Without a jar of haste or pain, And go without one quickened breath, Finding all realms of life, of death, But summer hours in sunny lands, To my next house not made with hands.

EDWARD, THE PEACEMAKER.

Edward VII was a peacemaker. He worked for peace between Boer and Briton in South Africa, and the result is a monument to enlightened statesmanship.

He made peace between France and England, and was therefore able to avert war between France and Germany when the Morocco question was on the nerves of continental statesmen. The delicate and successful part played by him in preserving friendly relations with Germany will be history some day.

Although an ally of Japan, he did not refrain from promoting a good understanding between his own government and the czar.

He always evinced a willingness to cultivate friendly relations with the people of the United States.

Perhaps the highest tribute to his ability as a conciliator is the kindly feeling shown to his memory by the people of Ireland. He granted them no boon, conferred on them no privileges, restored to them none of their undoubted rights. But they believe he never cast his shadow between them and their aspirations for home rule, but, on the contrary, would have been glad to see justice done them.

Ought the world leave to Britons alone the duty of paying the last solemn tribute to such a man and such a king? Why should not all Europe and America, on the day of his funeral, make some public manifestation of respect for one who, in the words of Prime Minister Asquith, will be known in history as Edward, the Peacemaker?

LADIES WANTED—TO PURCHASE their groceries, soaps, etc., by our Factory-to-Family plan. We give you full value for your money and in addition the same value in premiums. We are also making a SPECIAL OFFER of FIVE EXTRA CERTIFICATES to secretaries of Club-of-ten. Write for free catalogue. Papworth Premium Co., 512 St. Marks Ave., Syracuse, N. Y.

Friends of peace the world over should take advantage of this opportunity to illustrate how close are human hearts, though divided by mountains or oceans. The people of a democratic republic need have no scruples against honoring a king. In honoring Edward VII they will be honoring the cause of peace and also honoring the memory of one who was a democratic ruler and a man among men.

Some special notice of Friday, May 20, the funeral day of Edward the Peacemaker, should be taken by the people of this country, in order that the day may be hastened when fraternal feelings will prevail between all the peoples of the world.

Then let us pray that come it may— As come it will for a' that— That sense and worth o'era' the earth, May bear the gree and a'that; For a' that and a' that, It's comin' yet for a'that, That man to man, the world o'er, Shall brithers be for a' that.

THE CHILDREN'S SUNDAY.

I hear so many grown people say: "I was always glad when Sunday was over when I was a child, it was such a long, dreary day."

I believe the Lord's day was made for the children as much as for grown people. They have a right to a pleasant Sunday as much as we have. We enjoy attending church and then a quiet afternoon of reading, and is it not true that, as a rule, we follow our own inclinations in regard to spending the day, without reference as to how the children enjoy it?

"They mustn't play out and make a noise on Sunday." No, of course not. But what may they do? They are not old enough to read and, if they are not quiet in the house, mamma and papa cannot enjoy reading.

You wouldn't like to sit in the house and keep quiet every Sunday afternoon, with nothing to entertain you but your thoughts, would you? And a child is so restless by nature—think how much harder it must be for him!

I know you feel it is the only day you have in which to rest, but there are different ways of resting. Give the children at least a part of your day. There is nothing that delights them so much as to have father or mother take part in their pleasures. We want our children to love Sunday, and there are so many nice ways of bringing them into close relation with the Father; they are so eager for information, and so quick to grasp ideas connecting God with the every day life, that it is no trouble at all to make a Sunday afternoon profitable and pleasing to them.

It isn't always necessary that they should stay in the house either. God gave us pure air and sunshine and He means we shall use them to make our bodies strong and our minds clear. A whole day, occasionally out in the country in summer, would be a boon to children who have only city air to breathe through the week, and it would not be wrong, for Jesus said:

"The Sabbath was made for man, not man for the Sabbath." The day should be spent in giving lessons to the children about God's handiwork in nature, and surely such a subject should be anything but dull and uninteresting to the children.

Do let us give the children a chance to enjoy the day.

HOUSE FLIES.

Among all the varied trials and discouragements that the housewife is called upon to bear the scourge of house flies is by no means the least.

Of what use is it to make the rooms sweet and clean if the flies are to be allowed free access and remain unmolested in their dirty work.

"But," you say, "we use screens and try to keep them out." That is just it, we try, but do we succeed? The screen doors have their springs to cause them to close quickly and the window screens are well fitted and yet these little torments sit on the outside of the doors until they are opened, when they fly gaily in.

The fly-paper is very useful in destroying flies that thus elude the vigilance of the housewife.

Home-made fly-paper is preferred by some and can be made as follows:

For poison fly-paper take pyrethrum roseum and water enough to cover in a suitable covered vessel. Let it come gradually to a boil, and let boil about one-half hour. Let cool and strain. Soak thick paper in it and let dry. When wanted put a piece in a plate and cover with sweetened water.

For those who may object to the poison paper on account of the flies dropping into things, the sticky paper or tanglefoot will be most satisfactory. To make it heat together three and one-half ounces of raw linseed oil, one pound of rosin and three and one-half ounces of molasses. Spread it on wrapping paper while warm.

By using either of these fly-papers the flies in the rooms can soon be cleared out, and when the windows have been wiped with a weak pearline suds to remove all traces of them, the housewife can rest secure—until the screen door is again opened, when, alas, the operation is again in order, unless care has been taken to remove

Paint Without Oil

Remarkable Discovery That Cuts Down the Cost of Paint Seventy-Five Per Cent.

A Free Trial Package is Mailed to Everyone Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powderpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much.

Write to Mr. A. L. Rice, Manufacturer, 47 North St., Adams, N. Y., and he will send you a free trial package, also color card and full information showing you how you can save a good many dollars. Write to-day.

everything from the surroundings of the back door that might entice the flies.

Dish water and other kitchen slops should be taken some distance from the house, as it is not only dangerous to the health of the inmates to pour them near the house, and especially if the well it near at hand, but is the surest way to entice myriads of flies to the house. If a slop pail is used it is sometimes fully as bad from the condition in which it is kept, but this is not necessary. A slop pail should never be of wood or paper, but always of tin or white iron. It is an easy matter to scald such a pail out every day with a good pearline suds, using a small mop or brush kept for the purpose to clean the top and sides. If slops have been spilled on the steps or porch, pour on some of the suds and sweep it off with the broom. Keep everything sweet and clean and the flies will leave.

USE FOR OLD PAPERS.

We've laughed at the story of the housewife who had subscribed for a certain journal for so many years that the proprietor decided to ask what she considered its most interesting feature. They expected to use her reply for an advertising feature, but changed their mind when it came. It was as follows:

"I like your paper because it just fits my cupboard shelves."

But there is many a good housewife who loves to read and yet who knows the value of paper as a labor saver.

I place papers between the springs and mattress, and it is surprising how much they save the mattress. I make pads of newspapers by basting several layers of them in an old sheet, and cover the mattresses on the baby's bed to prevent it from becoming soiled.

In cold weather I place papers between the blankets, and they are as good as an extra quilt. I also place a newspaper over the chest and shoulders, and button my cloak over it when going out in very cold windy weather, and am comfortable where I would otherwise become chilled.

I use old papers to polish my windows, after washing them, and also to rub the tea kettle bright. Use the paper while the tea kettle is hot and you will get a better polish. Wipe all greasy dishes with old paper before washing them, and see how much more agreeable the work becomes.

A paper laid down in front of the stove before removing the ashes catches the dirt, instead of its getting on the floor or oil cloth. Rubbing the oil cloth with a piece of old paper which has been saturated with kerosene helps to keep it clean and bright.

Put lamps on an old newspaper while cleaning and filling, and save getting your table dirty. A paper funnel used to cover the chimney during the day, saves some washing. If obliged to use a scrubbed floor before it is dry, spreading a few papers down will keep it from getting marked. Put a paper on the board or table before cleaning fowl or fish and

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10 specimens free with each \$25 order.
Dealers take notice—order at once.
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the refuse may then be rolled up and burned. Rub any grease or any other substance off the cook stove before it burns and thus save time and blacking.

POTATOES IN THE LAUNDRY.

If you have never used potatoes for laundry purposes, give them one good trial—then you'll know what to do with the small potatoes that are unfit for the table.

Wash and peel Irish potatoes, grate them into cold water, and saturate the articles to be washed in this water. They may then be washed with soap without the color running.

In washing black or navy blue linens, or percales, pare and wash two large potatoes and grate them into two pailfuls of tepid water. Add a tablespoonful of ammonia, wash the goods in this, rinse them in cold, bluing water. Starch will not be needed. The garments should be dried and ironed on the wrong side.

Potato water will also set the color in figured black muslins, prints, in colored woolen fabrics, ribbons and silks that must be washed. Often potato water will cleanse sufficiently without the use of soap.

To remove grease spots from woolen goods, rub them with a little grated potato, applying it with a woolen rag.

The potato water should be strained before using it on woolen garments. Use what is left, after straining, to remove spots from your carpets.

WHOLESALE IN THE EAST CREDIT THE WEST WITH KEEPING UP THE PRICES OF BUTTER.

Although receipts of butter at New York in the month of May were larger than usual, the prices of the best grades are higher than they have been before at this time since the civil war. Wholesale dealers in the West Side district say that Western speculators have been buying up supplies and that this buying movement has kept up the prices to their present high level.

One of the large dealers says there is no doubt of the ability of the Western men to keep up the prices if they determined to do so. The speculators here are worried, however, by the possibility that the Western buyers may unload supplies on the East and then let the market drop.

So it goes, the farmer is blamed for high prices and yet, once more we see who is keeping up the price to consumers. There is no benefit this time to anyone but the speculator.

WHAT A POGROM IS.

Pogrom—a word used often by Mr. George Keenan in his articles on "The Reaction in Russia," the first of which will be the leading feature of the June "Century"—is defined in the new supplement of the "Century Dictionary" as: "In Russia, an organized massacre, particularly a massacre of Jews that is countenanced more or less openly by the officials." Mr. Keenan himself, in his article in the June "Century," defines it as "that distinctively Russian combination of assault, robbery, arson, pillage and murder."

A \$100 Typewriter for 17 Cents a Day!

Please read the headline over again. Then its tremendous significance will dawn upon you.

An Oliver Typewriter—the standard visible writer—the \$100 machine—the most highly perfected typewriter on the market—yours for 17 cents a day!

The typewriter whose conquest of the commercial world is a matter of business history—yours for 17 cents a day!

The typewriter that is equipped with scores of such conveniences as "The Balance Shift"—"The Ruling Device"—"The Double Release"—"The Locomotive Base"—"The Automatic Spacer"—"The Automatic Tabulator"—"The Disappearing Indicator"—"The Adjustable Paper Fingers"—"The Scientific Condensed Keyboard"—all

Yours For 17 Cents a Day!

We announced this new sales plan recently, just to feel the pulse of the people. Simply a small cash payment—then 17 cents a day. That is the plan in a nutshell.

The result has been such a deluge of applications for machines that we are simply astounded.

The demand comes from people of all classes, all ages, all occupations. The majority of inquiries has come from people of known financial standing who were attracted by the novelty of the proposition. An impressive demonstration of the immense popularity of the Oliver Typewriter.

A startling confirmation of our belief that the Era of Universal Typewriting is at hand.

A Quarter of a Million People are Making Money with "The Oliver Typewriter"

THE STANDARD VISIBLE WRITER
The Oliver Typewriter is a money-maker, right from the word "go!" So easy to run that beginners soon get in the "expert" class. Earn as you learn. Let the machine pay the 17 cents a day—and all above that is yours.

Wherever you are, there's work to be done and money to be made by using the Oliver. The business world is calling for Oliver operators. There are not enough to supply the demand. Their salaries are considerably above those of many classes of workers.

"An Oliver Typewriter in Every Home!"

That is our battle cry today. We have made the Oliver supreme in usefulness and absolutely indispensable in business. Now comes the conquest of the home.

The simplicity and strength of the Oliver fit it for family use. It is becoming an important factor in the home training of young people. An educator as well as a money maker.

Our new selling plan puts the Oliver on the threshold of every home in America. Will you close the door of your home or office on this remarkable Oliver opportunity?

Write for further details of our easy offer and a free copy of the new Oliver Catalog. Address

The Oliver Typewriter Company
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ODDS AND ENDS OF INTEREST TO OUR PEOPLE.

WHAT'S BEST TO DO FOR THE COLT.

When a mare is expected to foal, an attendant should be on hand to give assistance in case help is needed. It is best to have the mare foal in a pasture or a lot if the weather is warm and dry, but if, on account of the weather, she must foal in the stall, have it roomy, dry and well bedded, with no holes or hanging straps or harness into which the foal can push its head.

Care should be exercised to prevent naval infection, and a clean foaling place with plenty of good bedding is usually all that is necessary. Binding the cord in boric acid powder and pure cotton is a great precaution. It is always best to interfere as little as possible with the mare or her foal unless obliged to do so.

It is important that the foal suckles as soon as possible after birth. The first milk of the dam acts as a purgative and prepares the colt's digestive tract for the digestion of the milk. The condition of the colt during the suckling period depends to a very great extent upon the treatment given the mare. If the dam has not been well fed during pregnancy and the flow of milk is light, she should be given much the same ration that is fed a dairy cow. If, on the other hand, her milk is too abundant or too rich, her feed should be lessened, and the colt not allowed to suckle when the mare is apt to scour. The colt should not be allowed to suckle when the mare is heated.

If for any reason the mare cannot suckle the colt, cow's milk may be used; it should be reduced one-fourth by water and fed at blood heat, with a little sugar added for taste.

It is important to carefully observe the colt's bowels for the first few days and, if necessary, use injections of warm water for the removal of any hard masses so likely to accumulate in the rectum.

When the colt is ten days or two weeks old the mare may safely be put to light work. With a little more care, just as good colts can be produced from work mares as from those turned into the pasture and allowed to go idle.

When the mares are being worked, it is well to leave two colts in one box stall with plenty of oats and good hay, preferably clover. Both mares and colts soon become accustomed to this arrangement, and it is in every way better than to allow colts to follow their mothers. In a short while they depend as much on the oats and hay as on the milk of the dam. If they can be turned out with their mothers at night, at pasture, it makes an ideal condition. Colts thus handled never stop growing when weaned, and will compare very favorably in growth with those running in pasture all the time. In case no use should be had for the mares, and they are on grass, the colts should have oats, or oats and bran after they are two months old.

The best time to start a colt off in the way in which it should go, in both feeding and training, is when it is young. It should be liberally fed bone and muscle-making foods, but should not be given more of these than it will eat up clean.

When the colt is quite young a loosely-fitting halter should be put on its head and it should be led about the lot a short time each day. By thus handling it when young it will soon learn to respond, and there will be no trouble in having to "break" it to work when it attains the working age. Kindness is a very necessary feature. The youngster should be handled gently at all times.

We are free to admit that we have always been a little partial to the plan of allowing the mare to be in the pasture at foaling time. Of course, in that case, she cannot be watched like she can if she is in the stable, but one can rest assured that there is no danger of disease germs lurking around an ordinary pasture, because the sunshine is their most deadly enemy. We have raised a good many colts and we have never had a case of joint-ill where a colt was foaled in the pasture and kept there for a few days. Of course, if the weather is bad it is not always practicable to do this, and in that case the advice given by this subscriber is good, namely, that the stall when the little fellow arrives must contain plenty of good, fresh bedding, and it is a most excellent idea to use some form of antiseptic on the navel cord. If a little attention be paid to the movement of the bowels, very little trouble need be anticipated after that.

HOUSE AMENDS RAILWAY BILL.

Telephone and Telegraph Companies Made Common Carriers and Brought Under Federal Control.

In an amendment incorporated in the Administration railroad bill by the House, telegraph and telephone companies are declared to be common carriers and as such subject to control by the Federal Government. The adoption of the amendment by a substantial majority was a shock to the leaders and marked the most radical change that has been made in the measure by either the House or the Senate.

While the action of to-day is not final it is indicative of feeling on the subject in the House and the leaders fear that the amendment will carry when a record vote is taken on it on the final passage of the bill.

A lively debate marked the effort to throw the cloak of the interstate commerce law over the operations of telegraph and telephone companies. It was disclosed that many Republicans, among them Representative Mann, of Illinois, chairman of the Committee on Interstate and Foreign Commerce, who is in charge of the pending bill, believe in Government regulation of the agencies of wire transmission, but it was suggested that such a provision should not be incorporated in the railroad measure. "The two services are totally dissimilar," said Chairman Mann, "and they should be treated in separate bills."

BLOODED STOCK for May.



The amendment was offered by Representative Bartlett, of Georgia. It was supported in speeches by a number of Democrats and opposed by Republicans on the grounds of expediency, the latter agreeing with Chairman Mann that if the telegraph and telephone companies were to be brought under Federal control a special law should be passed for the purpose.

The amendment was adopted by a vote of 109 to 76. The leaders are uncertain as to its fate by reason of the fact that it was carried to-day by a mixed combination of regulars and insurgents and the Democratic minority.

If the Bartlett amendment is retained in the bill the measure will have to be changed in many important respects. The bill as reported deals exclusively with agencies of transportation. With the provision giving the Interstate Commerce Commission jurisdiction over telegraph and telephone companies a large number of changes would have to be made in the language of the pending measure. Objection was made to the Bartlett amendment chiefly on that ground.

As a result of the action of the House in voting for Government regulation of telegraph and telephone companies and the narrow margin by which important sections so far considered have been adopted, those in charge of the bill are counting noses. While they are confident that the bill will be passed they very much desire that it shall go through substantially as reported. The commerce court provision, which has been so urgently recommended by the Administration, narrowly escaped defeat, being saved by a tie vote. There has

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And I can prove it. Forty-five years ago I commenced selling scales to the user, letting him have a free trial and never asking a cent in return until he had found that my scale was exactly as represented. I have patented the only reliable **PITLESS STOCK SCALE**, complete with steel frame, compound beam and beam box without extra charge, sold at a fair price. My scale is not cheap, but BEST. I will send you full information, a scale on approval, or book, "Reasons for Owning a Scale" if you address: **JOSEPH H. PYLE, THE SCALES,** 108 C St., BINGHAMTON, N. Y.

PILLINGO PHILA.
Impregnators for Mares and Cows From \$2.50 up.
Artificial Impregnators are "Easy to Use." Write for pamphlet.
GEO. P. PILLING & SON CO., Philadelphia, Pa.

BLOODED STOCK for May.

been another tie vote, and on all issues carried by the friends of the Administration the votes have been very close.

The opposition to the bill in the House is led in the main by Western insurgents, who have apparently been in close conference with their insurgent brethren in the Senate. Until this point the opposition has had very little success. It has forced the adoption of several amendments of minor importance but did not score substantially until a vote was taken on the provision affecting telegraph and telephone companies.

This Bill is destined to receive so many amendments that as finally passed by the House and Senate it will hardly know itself.

CEMENT WALKS ON FARMS.

Cement walks on farms are becoming quite common in some of the communities. They are easily made and are everlasting if made right. A good many farmers are doing without them because of the expense. If the sand is hauled at odd times and the walk put down in sections as the time can be spared, the expense will not be felt, because the cost of materials in the country is not very great, and then it is a great satisfaction to have good walks.

If the subsoil is porous and allows the water to fall away rapidly so as to prevent freezing it is not necessary to excavate for a foundation, as the walk will not settle. But where the subsoil is a stiff clay it is better to excavate from 14 to 16 inches and fill to within 4½ inches with cinders or gravel to make a firm foundation. Two-by-fours are used for the sides of the form, taking great care to level them.

The surface coating is composed of one part cement and two and one-half parts of sand mixed to the consistency of mortar and spread over the concrete forms and smoothed with a trowel. Cover the walk to protect it from the sun and it will be ready for use in three days, but will not get its ultimate strength before thirty days. —Cement and Engineering News.

THE ARTIFICIAL IMPREGNATION METHOD.



Year by year this method of increasing the profits of the stock farm grows in favor.

Practical men endorse it. They have demonstrated for themselves that what appeared to them at first sight a vagary of science is in reality a practical method, adapted to the use of the plain every day farmer.

The apparatus is simple, hard to get out of order, easy and cheap to repair, if subjected to accident or ill usage. The number of young animals at present living in the United States that would not be commercial assets, but for this method would doubtless sell for enough money to buy an artificial impregnation apparatus for every breeder.

Simple as is the apparatus and the manipulations necessary to its use, and it is practically fool proof, fertile in results as it has been proven to be,

it should be in the hands of every up to date breeder. The Pilling Impregnator represents the latest improvement in this line. It is reasonable in price and like all the goods furnished by that house it is "easy to use". Write to-day to G. P. Pilling & Son Co., 23rd & Arch Sts., Philadelphia, Pa., for free book. Now is the time to get your share of the money.

SEND FOR THIS BOOK.

All of our readers who are thinking of buying a carriage, wagon or set of harness in the near future ought to write to the Elkhart Carriage and Harness Mfg. Co., Elkhart, Ind., and ask for one of their new 1910 catalogs. This company has been manufacturing vehicles and selling them direct to the user for thirty-seven years and are by far the largest manufacturers in their line doing business this way. Their success is wonderful, but it only goes to show that honest goods at honest prices are always appreciated. This firm knows how to get up a book so as to give a prospective buyer an accurate knowledge of what they have to offer. Going through their catalog is as good as a trip through their factory. Everything is illustrated with the finest half-tones, made direct from photographs. They picture each particular feature and describe it so clearly and completely that there is nothing left to the imagination. When you order a job from the Elkhart catalog, you know just what you are going to get. Besides they give you a two years' guarantee on every vehicle they sell, and a guarantee from such a company means what it says. Get one of these books before you buy elsewhere anyway.

A MOTHERLY SOW.

Serenity, undisturbed by fretful restlessness, are characteristics of a good brood sow. Any breeder of experience will know just what is meant when it is said that a sow is "motherly," but the exact meaning is difficult to set down in words. This material manifestation has an important bearing on success with a litter, and the dam's promise in this regard should have weight in her purchase. In making a selection the teats should be examined to discover that there are a dozen, well formed, not too small or obscure, and giving indications of supplying abundant milk.—From Coburn's "Swine in America."

PRICES OF BEEF AND PORK WILL CONTINUE HIGH

As will also the prices of lamb and mutton. At least this is the almost unanimous opinion of both stockmen and packers all over the country. A shortage in any kind of grain and a corresponding advance in prices can be, and generally is, very quickly overcome by increased acreage the very next season. This is not possible with beef, butter and pork; and as there is an admitted great and wide reaching decline in the number of hogs in this country, and nearly as great a one in cattle, and this deficiency can by no possibility be made up quickly, there seems every reason for counting upon pretty good prices

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INFLUENZA OR PINK EYE.

Influenza—often known as Pink Eye—is one of the oldest equine diseases. Outbreaks of this disorder are of frequent occurrence in all parts of North America. It is a highly infectious disease and can be produced only by infection. The contagion is volatile. It will float in the air, and healthy horses, which inhale these germs, are almost sure to develop the malady. While this is supposed to be the most ordinary medium for the distribution of the contagion, there is no doubt that it is sometimes carried from place to place on the persons of the attendants or on clothing or stable utensils.

Horses of all kinds and conditions are very susceptible to the disease, the old and the young, the vigorous and the weakly, the well-looking after and the neglected are alike subject to infection.

One attack does not necessarily render an animal immune from future attacks, although some writers claim that in many cases it does. The period of incubation is usually from four to seven days.

First symptoms are partial or complete loss of appetite, accompanied by a depressed and languid appearance.

There will follow a swelling of the legs, sheath, breast or other dependent parts of the body, which will

cause the patient to walk with a stiff and straddling gait. There will be a cough, and discharge from the nostrils, the throat will become sore and the animal will have difficulty in swallowing. In some cases where the patient attempts to drink, the water will run out through the nostrils. An affection of the eyes is a very characteristic symptom. They will become inflamed, tears will be discharged in considerable quantities, the pupil will become smaller, the eyelids swollen and hot, and constantly closed, and the eye will become very intolerant of light.

This disease, though very contagious and quite common, is fortunately not very fatal. In itself it is not usually of a very serious nature, although very grave complications are liable to develop during its course.

If there is any weak spot in the system it is pretty sure to find it out, and set up more or less serious trouble. Inflammation of the lungs, affections of the brain causing paralysis, and weakness of the heart are among the more ordinary complications, although by no means a complete list. Mares in foal very often suffer from abortion as a result of an attack.

Because of the mild and typical course of the disease medical treatment (barring complications) is generally not needed. Good nursing and

careful attention to diet and ventilation are in most cases sufficient for the purpose. The patient should be kept dry and warm, and great care should be taken to provide an abundant supply of fresh air. The animal should be outside if the weather permits. If necessary to keep him in, look well to the ventilation. There are plenty of stables in this country that would be the death of a horse confined in them sick with influenza. Keep the body warm, if necessary use blankets. Hand-rub the swollen legs, bathe the eyes with warm water, keep the nostrils washed clean and give succulent, easily digested food. If unable to drink properly hold the pail of water so high that he can drink without lowering his head. An occasional hot mash is useful, the steam rising from it will soften the inflamed throat and air passages and help relieve any cough that may be present.

No horse should be compelled to do any work while suffering from this disease. Many a good horse has been ruined for life by such treatment. The attack may be considered very light and the animal appear not much the worse, still the whole system is in a fevered condition during the course of the disease, and more or less serious complications are liable to occur unless the best care is taken of the patient.

THE BLOODED STOCK DAIRYMAN AND POULTRY RAISER



JUNE.

I gazed upon the glorious sky
And the green mountains round,
And thought that when I came to lie
At rest within the ground,
'Twere pleasant, that in flowery June,
When brooks send up a cheerful tune,
And groves a joyous sound,
The sexton's hand my grave to make,
The rich, green mountain turf should break.
—Bryant.

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OF INTEREST TO YOU

RAIN.

The ceaseless rain is falling fast,
And yonder gilded vane,
Immovable for three days past,
Points to the misty main.

Longfellow must have written this couplet on some such day as we have been having so often, so constantly, for weeks here in the East. Knowing that the world has passed through just such an experience at least once before makes us pluck up heart that there is, somewhere behind those dull, grey, unbroken masses of cloud, the great, warm sun, and that one of these mornings we will open our eyes to behold him in all his dazzling glory. And with the sun shining discouragement seems to fade, and really does fade very often.

What folly it is to complain about the weather! We cannot know all the plan, but we can remember that a good Father never asks His children to bear more than they can. If we seem to have more than our share of undesirable weather, may be it is so that it may not fall to the lot of someone else less able to put up with it, and then it may be our turn. Perhaps we may even deserve a little check to set us thinking how much we have to be thankful for.

And then worry can not help it.
But the Poet went on to say:
How beautiful is the rain!
In the broad and fiery street,
After the dust and heat,
How beautiful is the rain!

WILL IT COME TO THIS?

The New Republican Ticket for 1912.
For President of the United States:
George Woodward Wickersham,
of New York.

For Vice-President:
Robert Marion La Follette,
of Wisconsin.

Platform:
The Railroads Be Damned.
—New York Sun.

FOR WORLD PEACE.

The resolution introduced by Representative Bennett, of New York, providing for the appointment by the President of a commission of five distinguished Americans to confer with foreign Governments on the subject of the establishment of world-wide peace has been passed by the House at Washington.

This is the commission which, according to a recent declaration of President Taft to Chairman Foster and other members of the House Foreign Affairs Committee, will be headed by Col. Roosevelt.

"Universal peace being an end most earnestly sought," said Mr. Bennett in explaining the resolution to the House, "our country, with its great resources and wealth, with no foreign enemies or entanglements, and with none but disinterested motives, may well take a decided step in favor of universal peace."

Chairman Mann objected to the resolution on the ground that it contained no limitation on the life of the commission or on its expenditures. After the House had adopted amendments providing that the commission shall make its report to Congress within two years and limiting its expenditures to \$10,000 he withdrew his objection and the resolution was passed.

WOULD MAKE WAR IMPOSSIBLE.

In an address before the World's Missionary Conference William Jennings Bryan pleaded for international peace. He said he was unable to understand how two Christian nations could justify war upon each other. He hoped the time was approaching when all disputes between nations would be submitted to international arbitration before the guns began to bark. War, he declared, would then be almost impossible.

INTERNATIONAL COURTS.

Justice Henry Billings Brown, of the United States Supreme Court, and a graduate of Yale '56, delivered the oration at the Yale Law School. His subject was "International Courts," and we print just a few sentences taken from here and there:

International arbitration has been a dream of political reformers from the time the first glimmerings of Greek philosophy and civilization began to dissipate the darkness with which ancient, and particularly Oriental, barbarism had overspread the earth.

The principle has been so well established that it is difficult to conceive of a controversy arising with Great Britain which both sides would not be willing to arbitrate. During the nineteenth century more than a dozen disputes with the mother country and at least as many more with other foreign Powers were submitted to arbitration.

Justice Brown here alluded to the request from Russia in 1899 for the Powers generally to send delegates to The Hague to consider methods of relieving the world from the oppressive burden of armaments and devising a method of preserving peace without a resort to force. He continued:

If the results of this conference be measured by the anticipations of the Emperor of Russia, who convoked it, and of the ardent friends who supported it, it must be considered a failure. The Powers could not agree upon a general reduction of armaments.

It must be confessed, however, that the conventions of the Hague conference had but little effect upon the politics of Europe. Within a year after the conclusion of its session a war broke out between Great Britain and the Transvaal Republic in South Africa, which was waged with great bitterness and resulted in the complete subversion of the republic as

BLOODED STOCK for June.

an independent Power. Beginning in 1904 Japan carried on for a year a terrible war with Russia for the possession of Manchuria and Port Arthur, the result of which was the establishment of Japan as a great Power to be reckoned with in all Eastern complications and as unquestionably the first Power of the Asiatic continent.

So little influence did this conference have upon the preservation of the general peace that to prevent the whole scheme from falling into desuetude in 1904 Mr. Roosevelt, then President of the United States, acting upon the suggestion of Congress and various peace societies, proposed the calling of a second conference, which met at The Hague in June, 1907, and remained in session until October 18.

While the main object for which this conference was convoked was not attained, the conference rendered most valuable service in recommending the creation of a judicial arbitral court which seems to be a supplement to the permanent arbitration court created by the first conference and a sort of an international prize court (with appellate jurisdiction over the highest courts of the several Powers), thus establishing the principle of compulsory arbitration in a limited class of cases.

That these conferences, though not succeeding in the main objects of limiting armaments and securing a compulsory arbitration of all disputes, have done a vast deal to promote these objects is evident from the fact that since the first conference was held more than fifty treaties of arbitration have been signed among the various nations of the earth, some of them limited to certain disputes of a more or less material character, others to all cases suitable for such submission or which cannot be settled by diplomacy, with a significant exception in most of them of cases affecting the independence, vital interest or the honor of the contracting States and do not concern the interest of third parties. In some cases the Hague tribunal is specifically mentioned as the arbiter and in others not.

The happy result achieved by these conferences have led the staunch friends of arbitration to foresee an early extension of the system to differences of a more serious character and to an ultimate submission of all international disputes and a general reduction of armaments.

In this general chorus of praise and enthusiasm it is odious to utter a discordant note, but I fear that those who profess to see the coming millennium do not take sufficient account of the underlying causes of war, which are frequently quite different from the nominal excuses put forward for a declaration of hostilities.

There are three obstacles which stand in the way of the solution of international questions by the Hague tribunal:

1. The impossibility of compelling an arbitration whenever either Power declines to assent to it, except in prize cases, where an appeal is given as matter of right from the courts of the particular nation to the international prize court.

2. The failure to provide a method of enforcing the execution of its decrees.

3. In nearly all the treaties made since the Hague conference with a view to carrying out the principle of arbitration between the particular Powers an exception is made of cases involving the independence, vital interests or honor of the parties to the treaty. These are practically admitted even by the strenuous advocates of international peace to be beyond the scope of arbitral settlement.

Notwithstanding its horrors, which ought to be avoided by all the means which human ingenuity can suggest, war sometimes becomes a deplorable necessity that every nation which desires to retain the respect of mankind may be called upon to face. A sudden and unprovoked attack upon the territory of a neighboring State, much more common formerly than now, is something which must be resisted at the risk of being charged with national poltroonry, even more opprobrious than in individual cowardice. While the general rule is that any material advantage gained by a victorious nation in a great war is offset by the injury done to the defeated party, so that the cause of humanity gains nothing in the end, there are undoubtedly certain wars which contribute to the advancement of civilization and the progress of the human race—such, for instance, as the conquest of savages by civilized nations. It ill becomes us to denounce such wars, since practically by the use of superior force it was that we obtained possession of this continent, that Spain and Portugal overran Central and South America and that Africa is at this moment being redeemed from the rule of savages by the Powers of Europe. Such conquests contribute vastly to the general welfare of mankind.

In this new field of international litigation which is now opening it is more than probable that the graduates of this school will be called upon to take part. Many of my personal friends have already done so. Schools of international law and diplomacy are being founded for instruction in this branch of jurisprudence. It is a field which commands the finest legal talent in the world.

THE SENATE INSURGENTS.

Impressions of a Business Man Who Spent a Winter in Washington.

I am just a plain business man and have had my nose to the grindstone for thirty years. This last winter I took a vacation, spending it in Washington. The methods of lawmaking received my attention, and my impressions, good, bad or indifferent, are given for what they are worth.

The Senate impressed me most because of the absence of the confusion that is so apparent in the House. Calm, deliberate action can be expected in the Senate, but the House of Representatives is more like a town meeting in New England, and to be heard you must have a voice of thunder.

At first my sympathy was with the so-called Progressives. It was of short duration. After a two weeks' attendance I found myself going over to the Standpatters. When Senator Cummins poured forth four days of eloquence on the railroad bill my sense of business economy was shocked by the waste of time and en-

ergy. Then insurgent after insurgent wanted to talk and did talk at great length, Dooliver, La Follette, Beveridge, Clapp and Bristow. In my judgment these men could have done more good to the country by studying business conditions and governing themselves accordingly than by ranting about the oppression of shippers and the crime of running a railroad.

Page Three.

THE LIFE OF THE PHYSICIAN.

At the Yale Medical School graduation exercises the address in medicine was delivered by Prof. William T. Councilman, professor of pathology at Harvard Medical School. His concluding words were:

You will find that the decoy of dress, deportment and words will in the long run avail you but little. Your profession will demand of you knowledge, skill and tactfulness which comes only from the sympathetic heart. You must make up your minds in the beginning that your life is going to be arduous, that there are few prizes; that even that degree of financial success which will enable you to marry and establish a home and family in simple comfort is now, and is becoming increasingly difficult, but there is no life which holds such possibilities for good and for happiness as does the life of the physician.

SHIP SUBSIDY NOT DEAD.

Effort to Be Made to Bring Up the Bill at Next Session of Congress.

Evidence that a determined effort will be made to pass the ship subsidy bill at the next session of Congress was given when Senator Gallinger, of New Hampshire, offered a motion to make the merchant marine measure the special order of business in the Senate on December 9 next. There was objection on the part of Senator Bailey, of Texas, and Senator Gallinger announced that he would renew the motion.

The New Hampshire Senator said that he had been urged by many Senators to bring up the subsidy measure at this session, but by reason of the pressure of other important business he had consented to defer consideration of the bill until next session.

THE FARMER AT THE FRONT.

Now that Congress is out of the way, President Taft intent on his well-earned vacation, and the dull season imminent in politics and business, the most serious matter of speculative consideration is the possible outturn of the crops. How much cotton, grain and other farm staples shall we have to export with which to pay our heavy foreign liabilities and our yearly outing expenses on the other side of the ocean? This is the matter that will chiefly occupy the minds of railway officials, financiers and speculative bulls and bears for the next ninety days.

The plodding farmer is the Atlas that upbears on his broad shoulders the whole fabric of industry. Men must go fed and clothed the world over. In consequence every branch of domestic enterprise and the whole movement of international credits drag along, awaiting the upturn of the farmer's plow and the harvesting of the crops.

THE COW AND THE DAIRY

BIG JERSEY RECORDS OF RECENT DATE.

Five Jersey cows have recently completed authenticated year's tests in which the yields amount to over 700 lbs. of butter. It would seem that cows capable of doing this are to be no rarity in the Jersey breed. The five now under consideration were bred and tested in widely separated sections of the country; namely, Oregon, Pennsylvania, Nebraska and New York. The 29 cows already in this 700 lb. list, whose records run from 700 lbs. 11 oz to 1126 lbs. 6 oz. butter in the year, have been bred in different parts of the country, and belong to different families of Jerseys.

The highest record amongst the particular five in question is that of Pearly Exile St. Lambert 205101. This cow was started on a year's test on January 5, 1909, and finished on January 4, 1910, milking every day during this period. At the beginning of the test she was two years and five months old, and had dropped her calf on the 2nd of January. The test was conducted under the supervision of the Oregon Experiment Station, four different testers acting during the year, one of them being Prof. F. L. Kent. The year's yield was 12345 lbs. 8 oz. milk, 816 lbs. 1.27 oz fat, equivalent to 960 lbs. 1 oz. butter 85 per cent fat, or to 967 lbs. butter 83 per cent fat, computed by overrun.

This record places Pearly Exile St. Lambert fifth in order of merit in the list of cows making 700 lbs or over of butter in the year, and is the highest record to date amongst cows between two and one-half years of age. Her largest month's milk record was made during the fourth month of her test, 1246.2 lbs. Her best fat record was made during the fifth month of the test, and was just over 90 lbs. Her first month's milk amounted to 1243.4 lbs.; the last month's milk during the test to 890 lbs. The average percentage of fat for the year was 6.61. The milk averages 1028.8 lbs., and the fat averages 68 lbs. per month.

The cow was bred by D. L. Keyt, Perrydale, Ore., and is owned by Walter J. Domes, McCoy, Ore.

The cow rating second amongst the five is Eva of Engleside 215398. This cow was tested under the supervision of the Pennsylvania Agricultural Experiment Station, four different testers being sent during the course of the year. Her test was started May 1st, 1909, when she was nine years and eleven months old, her last calf being dropped on the 26th of April. During the 365 days of the test she produced 14832 lbs., 5 oz. milk, containing 733 lbs., 9.1 oz. fat, equivalent to 863 lbs. butter 85 per cent. fat, or to 864 lbs. 14 oz. butter 83 per cent. fat, computed by overrun.

In the list of cows making over 700 lbs. butter she ranks seventh. Her first month's milk amounted to 1785 lbs., and her last month's to 816.5 lbs., the first month's fat yield being 70.5 pounds and the last month's 47 pounds. The average percentage of fat in her milk for the year was 4.945; average milk per month, 1236 pounds; average fat per month, 61.13 pounds.

Her owner reported, a few days after the completion of her test, that she was still milking twelve quarts or over a day, and that there was not a day during the year that she did not take her feed, and at no time did she require the attention of a veterinarian.

She was bred by B. C. Kaufman, Windom, Pa., and is owned by Samuel G. Engle, Marietta, Pa.

The third cow on the list is Glenda's Baby 204770, tested by the Nebraska Agricultural Experiment Station, two different testers visiting the farm in different months during the year. Her test was begun March 12, 1909, when she was six years and one month old. She had calved March 8th. Her yield for the 365 days is 12889 lbs. 12.8 oz milk, 711 lbs. 15 oz. fat, equivalent to 837 pounds 9 oz. butter 85 per cent fat, or to 841 pounds 8 oz. butter 83 per cent. fat, by overrun. The milk averaged during the year 5.523 per cent. fat. Her first month's milk amounted to 1398.4 pounds; her last month's milk to 719.7 lbs.; first month's fat, 74.11 pounds; last month's fat, 43.18 lbs. Her milk yield averages 1074 lbs., her fat yield 59.33 lbs. per month.

In the list of cows making over 700 lbs. of butter she ranks eighth.

She was bred by Ella A. Hosford, Lincoln, Neb., and is owned by W. L. Hunter, of the same place.

The next cow in order is Anna Rosaire 194379, tested under the supervision of Cornell Agricultural Experiment Station. Seven different testers tested the milk of this cow during the year. Her test started March 20, 1909, when she was at the age of five years and two months, her last calf having been dropped on the 16th of March. She milked for 365 days, her record being 12485 pounds 9.6 oz milk, 675 pounds 11 oz. fat, equivalent to 794 pounds 15 oz. butter 85 per cent. fat, or to 797 pounds 15 oz. butter 83 per cent. fat, computed by overrun. The average percentage of fat in her milk for the year was 5.411; average yield per month, 1040.5 pounds milk, 56.3 pounds fat. The first month of the test shows the heaviest milk yield, 1528.8 pounds. The last month of the year she produced 575.7 pounds milk. Her best month's fat yield was during the second month of the test, 84.83 pounds, and during the last month her fat yield was 37.57 pounds.

In the list of 700 pound-or-over cows she ranks eleventh.

The fifth mentioned cow is Gertie of Glynlyn 2d 206903, her test also being supervised by Cornell University Agricultural Experiment Station, eight different representatives of the station testing her milk at different times during the year. Her test was begun April 23, 1909, when she was three years two months old. She had calved April 18th. Her record for 365 days is 13198 lbs. 1.6 oz. milk, 632 lbs. 9.7 oz. fat, equivalent to 744 lbs. 4 oz. butter fat, or 745 lbs. 3 oz. butter 83 per cent fat, by overrun. In the list of 700 lb. cows she ranks twenty-first. Her milk averaged for the year 4.793 per cent. fat. Her best milk yield was during the second month, 1538 lbs. During the last month of the test she produced 881.3 lbs. milk.

The second month of the test shows her best fat record also, 70.93 lbs. During the last month of the test year the fat amounted to 43 lbs. Average yield per month, 1016.5 lbs. milk, 52.7 lbs. fat.

Both the last mentioned cows, Anna Rosaire and Gertie of Glynlyn 2d, were bred and owned by George H. Sweet, Aurora, N. Y. Both are by the same sire, Rosaire's Golden Lad 64554, bred by Mr. Sweet.

This bull has three daughters that have tested respectively 745 lbs., 797 lbs., and 990 lbs. butter in one year. —R. M. Gow.

THE NEW WORLD'S BUTTER RECORD FOR THIRTY DAYS.

Chenango county, New York, now has the distinguished honor of producing the best cow the world has ever known, and comparatively few realize what that really means, says the Chenango Telegram. For many years there has been great rivalry among farmers and dairymen as to who could or would at some future date have the proud distinction of owning a world's record animal.

The real name of this queen of all cows is DeKol Queen La Polka 2d, and her fortunate owner is Clayton Sisson, of Sherburne, New York, a village just twelve miles north of Norwich. Mr. Sisson lives just about a mile south of the village so that if one cared to drive to his farm it would mean about 11 miles from the county seat.

All of Mr. Sisson's herd are of the Holstein-Friesian breed and all his stock is registered. He has been breeding Holsteins for about five years and this animal he purchased from a neighbor some time ago, paying the sum of \$175 for her.

The record made by this marvelous cow is as follows:

Butter record, seven days, 35.34 lbs. Butter record, 30 days, 145.10 lbs. Milk record, one day, 124.00 lbs. Milk record, eight days, 841.8 lbs. Milk record, 30 days, 3376.9 lbs.

Just reflect for a moment what this means—more than a ton and a half of milk from one cow in 30 days. There is only one cow in the wide world that has ever beaten any of the above records, and that animal was Grace Payne 2d's Homestead, owned by H. A. Moyer, of Syracuse. She made 35.55 lbs. of butter in seven days. Mr. Moyer was offered just \$8,000 for this cow right after the



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test was made and in two weeks from that day the animal was dead, having contracted pneumonia.

The cow that has tested nearest the Sherburne animal is Colantha 4th's Johanna, owned by Mr. Gillett, of Wisconsin. Her record is as follows:

Butter record, seven days, 35.22 lbs. Butter record, 30 days, 138.54 lbs. Butter record, one year, 1248 lbs. Milk record, 30 days, 2,677.5 lbs.

Mr. Gillett was offered for this cow and her male calf the sum of \$15,000, by D. W. Field, of Montello, Mass., but the offer was refused.

The cow that previously held the highest one day's milk record was DeKol Creamelle, and she produced in one day just 119 lbs. of milk, but her butter record for seven days was only 28 lbs. She was owned by D. W. Field, of Montello, Mass.

When one stops to reflect that the average dairy cow in the State of New York, according to statistics gives only 3,000 lbs. of milk annually, it seems almost impossible to conceive that his Chenango county cow has produced more than that quantity in 30 days. Stating it in another way, this Sherburne cow has given 124 lbs. of milk in one day, or 62 quarts. She gave 3,300 lbs. in 30 days, or 1,650 quarts.

Mr. Sisson invites those interested to call and see the animal, but she can only be seen at the milking or feeding hours, as at all other times she must have her rest undisturbed.

DeKol Queen La Polka 2d is the proud dam of a male calf that is practically worth its weight in gold. This handsome fellow is four weeks old and a reporter heard Mr. Sisson offered \$2,500 for the youngster, but the offer was courteously declined. Although he did not so state at the time, it is doubtful if any sum under \$5,000 would tempt him to part with this promising youngster. He asks \$10,000 for the cow and will probably get his price before many days have rolled away. She is six years old and for a part of the time while undergoing the tests was not in the best physical condition.

During the test the animal was in what is known as an old-fashioned rigid stanchion and not in any one day did she consume more than 20 pounds of grain.

All dairymen, and in fact, all citizens of Chenango county, should feel proud of the fact that a world record cow has been produced right here, and Mr. Sisson, who is an intelligent, struggling young farmer and dairyman, is to be congratulated on the good fortune that has come to him.

GREAT CLAIMS FOR RED POLLS.

"It seems strange that dairymen can not outgrow their tendency to quibble over breed type, special type and fancy points, and get down to actual performance. They make it harder for themselves by trying to obstruct the path of those who believe that if a cow is bred right, she may be of a smooth conformation and still prove her value in dairy performance. I have read much that has

been advanced by these special-type theorists, but have never heard of or seen written a theory, or seen facts presented, showing why a cow of angular build should be more profitable in the dairy than one of smooth conformation. Yet it is always the same; the breeder of dual-purpose cattle is held up to ridicule for daring to suppose that his dual-purpose animal has a place in the farm dairy.

Isn't it about time that there was a change? Some of us who are old enough can remember when the breeders of the different breeds of sheep, hogs and horses used to play at the same game. But we see nothing of this now. The breeders of angular-built dairy cows are the only ones who are still training in the Rip Van Winkle class; and they are either twenty years behind the times, or else they have an axe to grind.

Being a breeder of Red Polled cattle, of course I am interested in this subject, and for the benefit of at least the reader who scorns the dual-purpose dairy cow, I would like to present a few facts. This breed is always red and never has horns. The breed is very prepotent, and is strong in transmitting its qualities to its offspring. We are willing to guarantee that with Red Polls crossed on cattle of any color or breed, 90 percent of the calves will be of a solid red color and never have horns. They also impress their dairy qualities just as strongly upon their young.

The Ohio Experiment Station made a test of silage as compared with dry feed for dairy cows a few years ago, and reported the test in Bulletin No. 155. The cows were selected from different breeds, and they were carefully fed through a four-months' test. In each lot a Red Polled cow stood first in production. At the Wisconsin University a Red Polled cow headed the herd for production for a period of five years. The breed herd book contains numberless records which prove conclusively the very high dairy standing of this breed.

I began breeding Red Polls about ten years ago, and at the present time I do not know of a single bull of any other breeding kept for service within a radius of two miles of me. I live in one of the very best dairy counties in the state, and have been sending the milk from my Red Polled herd to the same creamery company for the past eight years. This company runs a retail milk route in connection, and retails about 450 bottled quarts a day. The milk from our cows is sold in this way, and we have never heard a complaint of sour, gargety or bloody milk, and we have not a three-teated cow on the farm. We have sent more milk than any other patron on the line for the entire time. When half our cows were two and three-year-old heifers, they paid us \$90 a year each. The milk tests from 4 to 4.6 per cent, and suits the trade.

When I began breeding these cattle, I selected them for their beauty and usefulness, and upon the advice of one of the highest authorities in Ohio on live stock subjects, I saw the cows in the Model Dairy test at the Pan American exposition. At the close of that test the Red Polled cow, Mayflower, 2d, was second in net profit for the six months' test, proving superior to all Jerseys, Holsteins,

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Ayrshires, and to all but one of the five Guernseys. I bought the bull that was sent to Buffalo to breed the Red Polled cows in the test. He was thought to be the best Red Polled bull in the country bred in dairy lines. The bull now in service traces to records of 9,202 pounds of milk and 403 pounds of butter to 11,002 pounds of milk and 577 pounds of butter. We like these cows in the dairy as well as any we have ever had, and I have lived in a dairy section all my life. When all milk companies begin to buy on test alone, as some of the best ones are now doing, there will be better times in dairying, and the dual-purpose cow will be found holding her own with her angular cousin.—Henry S. Kelley, Ashtabula Co., O.

This was clipped from a friendly paper and is published in full for the benefit of our readers. We wish some of you would write us stuff like this. You could if you would, because you are having similar experiences, and to let your views and results be known might save many a brother farmer the sacrifice of a herd with excellent possibilities.

ANNUAL CONVENTION.

Twenty-Fifth Annual Meeting of the Holstein-Friesian Association of America

Will be held in Syracuse, N. Y., on Wednesday, June 1st, at 10 o'clock, for election of officers and transaction of any other business that may come before it.

All persons interested in Holstein-Friesian cattle, whether members of the Association or not, are most cordially invited to attend, and

Special Rates on Railroads
have been secured on the certificate plan, of a fare and three-fifths from the New England Passenger Association, the Central Passenger Association and the Trunk Line Association, covering the principal territory from which attendance comes.

This arrangement can be effective in securing the low rate only when 100 persons secure and present to the Secretary at Syracuse, 100 certificates obtained at the starting point of the journey. If the fare is 75 cents or more, each person attending should secure a certificate from the railroad ticket agent at the starting point. Unless this is done the scheme will fall through, to the loss and discouragement of members attending from a distance.

HOGS

PASTURING AND SOILING.

Wheresoever situated, no farmer is rightly prepared to raise hogs profitably and in any considerable numbers unless well supplied with pasture and grass or facilities for providing acceptable substitutes. In the economical growing of pork there is no more important factor to be considered than that of pasture. Range in pasture affords growing animals the exercise so necessary to health and proper development; and the succulent grasses, while rich in muscle and bone forming materials, tend to prevent disease and to counteract the heating and fever imparting properties of corn. This latter quality, and exercise, annually save many thousands of dollars to hog raisers of the United States, yet the losses that result every day to farmers that do not act upon the fact that the hog is, in his normal condition, a ranging and grass eating animal, is still enormous. Because the hog is tractable and uncomplaining, his keeper often does not realize that an effort to maintain him wholly upon the more concentrated and heating feeds is as unnatural and unprofitable as it would be to keep horses and cows in the same manner. A further and very important consideration in favor of grass and forage for swine in summer is its small cost, which, as compared with grain feeding, is merely nominal.

It is well put by Director H. J. Waters, of the Missouri Experiment Station, in Bulletin No. 79, and with a wide application elsewhere, outside of his state, in his averment that "perhaps the largest single waste occurring on the Missouri farm is that which comes from the too exclusive use of corn in growing and fattening hogs. The cheapest and most easily applied remedy is a more general use of the proper forage plants in summer and the use of some home grown protein in winter. It is not, of course, to be denied that the hog is primarily a grain consuming animal, but forage plays an important role in economical hog production, and deserves far more attention than it has yet received."

A comparison merely of the nutritive values in the product of an acre of land in grain or in grass, including the legumes, such as clover, particularly red clover, and alfalfa, serves to show the importance of the grass. If a comparative basis be taken of four pounds of grain or fifteen pounds of green clover or alfalfa to make one pound of pork, and the pork is valued at four cents a pound, the following will show a fair average:

Per acre	Pork	At 4 cts.
Produced per lb.		
Wheat.....15 bushels	225 lbs.	\$ 9.00
Barley.....35 bushels	420 lbs.	16.80
Oats.....40 bushels	330 lbs.	13.20
Corn.....40 bushels	560 lbs.	22.40
Peas.....25 bushels	375 lbs.	15.00
Green Clover 6 tons	800 lbs.	32.00
Green Alfalfa 10 tons	1333 lbs.	53.32

This estimate of the product of an acre of clover or of alfalfa may be considered rather low (especially for alfalfa), as often a larger yield is ob-

tained in a favorable season. In fact, in an experiment at the Oregon Experiment Station, Bulletin No. 80, in which 12 pigs about three months old were hurdled on good clover from May 2 to August 2, results nearly one third better were secured. In addition to the clover the pigs were given 317 pounds of shorts worth \$11.00 per ton, 69 pounds of whole milk worth 90 cents a hundredweight, and 1207 pounds of skim milk worth 15 cents a hundredweight. A gain of 253 pounds was reported, valued at 4½ cents a pound. The pigs utilized 26 square rods of clover. As the gain was worth \$11.38 and the shorts and milk cost only \$4.17, the profit by means of clover pasture was \$7.21, from which the deduction was made in the report of the experiment that it seems that one acre of good clover for growing hogs represents a value of \$44.36."

If the foregoing table, compiled by the author from the figures of scientific observers, may be accepted as reliable in practice, it is evident that an acre of alfalfa is worth for growing swine as much as six acres of average wheat, more than four acres of good oats, almost as much as 22½ acres of good corn, and equal to 12½ acres of clover.

Soiling.

Soiling may be defined as the practice of providing confined live stock with freshly cut forage. Its advantages have long been recognized, and one of the earliest recorded American experiments was that of Josiah Quincy, by which he found that 20 cows could be supplied by soiling from 17 acres of land, while 50 acres were necessary to pasture a like number.

Soiling crops are more frequently used for the larger animals than for swine, and the greater number of experiments with green food for swine have been with pasturage. A dairy cow may be more successfully maintained by soiling than on pasture, but a hog kept in a pen and furnished grass only, would prove unprofitable. This was tested at the Utah Station (Bulletin No. 40), where shoats confined and fed on green forage exclusively, mainly alfalfa, lost more than a quarter pound a day during a period of three months.

This does not at all signify that soiling may not be valuable in swine rearing, but it emphasizes the importance of supplemental feeding. If grain is the main feed, pasturage or soiling may supplement it, while to hogs on even the best of alfalfa pasturage the ear or more of corn that may be given daily will be the supplementary part of the ration. In any case the ration of feeds should be so adjusted that the hogs will not lose weight or remain at a standstill. The feeder should consider always that any day between weaning and starting to market in which hogs do not make some gain is a day lost, if not worse.

Value of Pasturage and Soiling.

Results at the experiment stations, so far as reported, show that soiling swine may be entirely profitable. In Utah, where the problem "resolves itself into growing pigs with a mini-

mum quantity of grain and a maximum quantity of alfalfa, milk and whey, or other cheap foods," numerous experiments have been conducted to demonstrate the status of pasture and soiling. Various tests with pigs fed on soiling as compared with others fed on grain ration gave from the soiling a saving of nearly ten per cent. in the feed required to make one pound of gain, besides a daily gain nearly one fourth of a pound better.

From 1890 to 1902 more than 100 tests were made at the Utah Station, which were of direct or comparative value regarding pasturage and soiling for swine. Quoting from Bulletin No. 94, "When fed a limited grain ration on pasture, the hogs ate less grain for each pound of gain than when fed the full grain ration. Using round numbers, a three-fourths grain ration saved one-third pound of grain; a one-half grain ration saved one pound of grain; a one-fourth grain ration saved 1½ pounds of grain for each pound of increase in live weight. Or, at 75 cents per hundred pounds of grain, this would be a saving in cost of production of ¼, ¾ and 1½ cents for each pound of gain respectively, if nothing is charged for pasture. Our experience shows that the hogs fed on a limited grain ration on pasture gained quite rapidly when later put on a full grain ration, and made those gains at a slightly less cost for food than the hogs fed a full grain ration.

Considering the financial side, with the price of grain as stated, the lot fed with "grain alone on pasture required \$5.32 worth of grain, while the value of the grain was \$8.13, showing a profit of \$2.71 on the feed, or more than 50 per cent. If the grain was worth 4 cents per pound, then the profit on the grain was over 100 per cent. With a half grain ration on pasture, the returns, with the grain valued at three cents per pound, are over 100 per cent on the cost of the grain, and at four cents per pound for the gain nearly 200 per cent. profit. On this point again a limited grain ration on pasture gives the largest returns for the grain fed.

Limitations of Pasturage.

The quantity of food required merely to sustain an animal is not inconsiderable, and this will be influenced somewhat by the effort necessary to secure it. Too wide a range in pasture may therefore be disadvantageous in encouraging the hog to become too much of a "rustler." On the other hand, the swine raiser who gives his hogs all the corn they will eat, with plenty of water and shade in the feed lot, may wonder why his hogs prefer lying down and resting between meals to roaming in available pastures. Profitable results demand a reasonable limitation in both directions, and an avoidance always of excess in either.

It is doubtful whether unlimited pasture may be considered economical except perhaps for brood sows. The proper amount of land to give over to pasture must necessarily vary according to its quality and other local considerations, and the length of time pasture will sustain hogs likewise is dependent upon the climate, quality

of the crop, age and number of animals, and other varying conditions. For an average it may be said that an acre of red clover should support six to ten hogs for from three to four months. Alfalfa, the leading pasture plant for swine, should support, if of vigorous growth, from twelve to twenty-five animals per acre, but an alfalfa stand should not be grazed by so many hogs that mowing will not be necessary to keep it in the best condition. The practice with alfalfa should be to pasture fewer hogs than will be able to keep back a rank or woody growth.

If only such number of hogs is kept on the alfalfa as will permit from one to three cuttings of hay being harvested from it during the season the pasturage will, on account of its fresh growth, be much better for the hogs, and the money values returned be much greater.

Blue grass may be allotted to from eight to twelve hogs per acre, and more if the grass is in first class condition. A good sod of Bermuda grass should provide for about the same number. Cowpeas will probably support six to eight thrifty shotes and artichokes, chufas and Spanish peanuts will supply eight to ten hogs, the length of time depending upon the proportion of grain fed.

These estimates may be entirely out of line in some instances, as modifications are liable to occur in the conditions governing any situation. Taking these into consideration, however, a hog raiser may use the foregoing as suggestions to figure from, and by the observation of his own situation for a season or two he will be able to arrange his crop areas according to his individual needs and facilities.

As indicated, it is desirable that the pasture be not too large, as modifications are liable to occur in the conditions governing any situation. Taking these into consideration, however, a hog raiser may use the foregoing as suggestions to figure from, and by the observation of his own situation for a season or two he will be able to arrange his crop areas according to his individual needs and facilities.

As indicated, it is desirable that the pasture be not too large, and particularly when hogs are first turned in, as their natural instinct for foraging will otherwise induce them to traverse too much territory, thereby injuring the crop and failing to reap its full value. This may be avoided by using portable fences or hurdles with which the proper area may be defined. If this is done the hogs will clean up the crop to the best advantage as they go. If it is tubers, beans and peas, much that would otherwise be destroyed will be utilized, and the fences may be moved as required. Restriction of the hog's roving is not so necessary on grass, clover or alfalfa pasture. Overstocking any pasture is to be avoided. If too many hogs are turned in, or, which is practically the same thing, the area is too small, its vegetation may be entirely killed and the hogs fail to thrive.

Early Pasturage.

A bite of something green early in the spring is relished by swine of any age, and it offers qualities highly valued by the farmer who understands the economy of feeding. Some highly rated pasture plants are not available before warm weather, although

they may then be the chief reliance for grazing, hence earlier substitutes should be provided. The matter of pasture or pasture substitutes should, in fact, be taken in hand a year or two in advance of the actual need. Blue grass and alfalfa are naturally among the best for early pasture. Blue grass or orchard grass will supply green feed as soon as the snow is off. Alfalfa is on hand early and late in the regions where it flourishes. Rye, in its territory, sown somewhat early in the fall, makes an excellent substitute for grass early in the spring. For a quick grown crop sown in the spring rape is probably to be accorded first place, as hogs may be turned in on it when it is a foot high, which will be within a few weeks of sowing.

Next month we will wind up this excellent chapter on a vital subject to all swine breeders, by the great authority, Mr. F. D. Coburn.

STUDIES IN HORSE BREEDING.

An Illustrated Treatise on the Science and Practice of Horse Breeding.

By G. L. Carson.

No book ever published embodies so many points of vital interest to the breeder. A life and a fortune have been spent in the investigations, and the collection of data from which this book is written.

Its scope includes such subjects as Conception, or the Origin of a Life; the development of the Foetus and Foetal Membranes of the Horse; the selection of a Stallion, the best description of a draft stallion ever written; the care of the Stallion, with a view to his Virility; the selection of a Brood Mare; the care of the Brood Mare, with reference to her Fecundity; Barrenness and Sterility, statistical; Parturition; Artificial Insemination; Artificial Conception, or the production of a Foetus without the direct agency of a Mare; The Capsule Method of Breeding; the care of the Foal; the Diseases of the Horse and their Treatment; the History of the Breeds, their Utility, Fecundity and Breed Characteristics, written from statistics; Cross Breeding; the Phenology of the Horse; a new subject; Feeds and Feeding, and many other subjects of interest. Profusely illustrated. Every subject handled without gloves. Printed upon the best enameled paper, with full cloth binding. Published by the author, at Norfolk, Neb. Price, postpaid, \$2.00.

NO REASON FOR IT NOW.

By some of the ancient nations the hog was considered a sacred animal. By others it was regarded as unclean and prohibited as food. This prohibition among the Jews was regarded by Tacitus and others as having been because of a feeling that pork was often unfit to eat in warm climates, and apt to encourage the spread of leprosy. Moses is thought to have forbidden the eating of pork because it was liable to give the Israelites diseases that would make them unable to endure the long march out of Egypt. In those days, when cooking was crudely done, there was no doubt much reason to fear trichina.—From Coburns "Swine in America."

The boar's condition should always be that of thrift and vigorous health, not too fat, nor yet so lean that as a

barrow he would be considered unfit for pork. If too fat he will be clumsy, slow, and in no wise sure.

Discretion must be used in the feeding of the boar, for carelessness in this respect may disqualify him for the season or even make him permanently impotent. It is possible to so poorly feed a boar that his progeny will be exactly the kind his owner does not want. His feed should be nourishing and cooling, and if corn is given it should be tempered with feeds which are somewhat laxative, and be used in moderation. When service is severe his exercise may be greatly lessened, and his proper feeding is the means of balancing this inequality.—From Coburn's "Swine in America."

HOGS.

FOR SALE—Durocs and Poland Chinas. Rhode Island Red Eggs 20 for \$1.00 or 100 for \$4.50. Thoroughbred Stock. WM. HARSHMAN, Thurmont, Md.

BARGAINS IN POLAND - CHINAS, BERKSHIRES and CHESTER WHITES I now have a large stock of probably the best I ever owned. Cannot tell you all here, but I have Boars and Sows, all breeds, 2 to 6 months old mated not akin; sows bred and boars ready for service. Guernsey Calves and Registered Scotch Collie Puppies. Write for prices and free circular. This stock must go and will be sold. M. B. Turkeys, Barred and White P. Rocks, B. Leghorns and Beagle Dogs. P. F. HAMILTON, Cochransville, Pa.

FOR SALE—Some fine Yorkshire Pigs—no better stock in U. S. Just imported—new blood. A. A. BRADLEY, Prewsburg, N. Y.

MILCH GOATS.

MILCH GOATS—Information regarding this most profitable milk producing animal. Write G. H. Wickersham, 1242 St. Francis avenue, Wichita, Kansas.

POULTRY.

FOR SALE—Good honest stock eggs of Single Comb Brown Leghorns; finest strains. Cups and Blue Ribbon winners at Cumberland, Frostburg and Somerset. 600 fine large farm-raised birds for sale at reasonable prices. Twenty-five extra choice Light Brahma cockerels for sale. Write me. HERMAN SHOCKEY, Sand Patch, Pa.

MISCELLANEOUS.

HORSES going blind Harry Co., Iowa City, Ia., can cure.

TROTTERING MARE for sale—a handsome, black, trotting mare, and beautiful stud colt, very fast. Second cousin to Dan Patch. Price \$200. P. J. WYAND, Cumberland, Md.

FOR SALE—Two litters Scotch Collie puppies, sired by the noted "Flying Comet" and "Laddie Boy," out of bitches bred in the purple; perfectly marked golden sable; strong, healthy, farm-raised stock. Prices from \$10 up. FRANK H. TAYLOR, Reedsville, Pa.

SEND 10c for a sample copy of the largest, newest, race-horse paper published. P. J. WYAND, Cumberland, Md.

FOR SALE—Pure-bred Registered Hirslein Bull. Ready for service this spring. Born April 6, 1909. Two-thirds white. Finely marked. Fine individual. Write for pedigree and price. MADISON COOPER, 101 Court, Watertown, N. Y.

OUR FEATHERED FRIENDS

Conducted by George W. Miller.

SOME OF THE THINGS MILTON PURVIS SAYS IN HIS NEW BOOK, "POULTRY BREEDING."

This new book by Mr. Purvis really ought to find its way quickly to the home of every man, woman or boy who breeds poultry of any kind. Every little while something new comes up in your flock that you are not quite sure about, even though you may be old in the business, and at such times it's a satisfaction to have a reference book by an authority to turn to.

There is no need of our saying anything about Mr. Purvis, as there is nothing new to be said of this distinguished writer on poultry affairs, so we will give a few extracts from his book, just to give you an idea of its plain, easily understood character. These extracts will be taken at random.

Cooking Feed.—As a rule it does not pay to cook feeds. Most feeds give better results fed raw. Potatoes are probably better cooked on account of their starchy nature, and when liver or lights are fed they should be cooked to kill any possible germs that may be in them.

Dead Fowls a Menace.—Dead fowls should be burned or buried deeply at a considerable distance from the poultry range to prevent others of the flock from becoming diseased. It is best to burn such dead fowls, if it is convenient, as the fire absolutely destroys disease germs, while burying them does not always completely destroy them.

Dust Bath.—If soil or dust is not procurable sifted coal ashes will answer, but wood ashes should never be used, as the alkali in them destroys the oil in the plumage, and, what is equally objectionable, takes the gloss off the shanks.

Eggs: Disinfecting.—A correspondent of the "American Poultry World" writes that he has saved hundreds of chicks by disinfecting the eggs with creolin dip. Dr. Woods gives the formula for making this dip as follows: mix one gill of creolin with 8½ quarts of soft water, the solution to be mixed fresh each time before using. The eggs are dipped in this and allowed to drain before being put under the hen or in the incubator.

Egg Production Without Males.—It has been quite well established by tests that hens kept separated from male birds will produce more eggs than those that run with males. In one experiment 5 hens, 3 pullets and a cock were put in the same pen, and 5 hens and 3 pullets in another pen. All were of the same breed and were given the same care. The experiment was continued from January until September. The mated females produced 959 eggs, and the unmated ones, a difference of 23 in favor of the unmated ones. In another experiment practically the same results were secured. The theory is that unmated hens are not worried by the males, and, being more quiet, retain more energy to be devoted to the produc-

tion of eggs. In the Australian laying competition, continued year after year, with 600 hens, an average production of 186 eggs per year has been secured, the hens all being unmated.

Epsom Salts, Purgative Dose.—Epsom salts is one of the most useful drugs we have in combatting internal diseases in poultry. An ordinary dose is 20 to 30 grains administered in water. The dose for different ages is as follows: 1 to 6 weeks, 10 grains, in feed; 5 to 10 weeks, 15 grains, in feed; 10 to 15 weeks, 20 grains, in feed; 15 to 26 weeks, 30 grains, dissolved in water; 6 to 12 months, 35 grains, dissolved in water; 1 year and over, 40 to 50 grains dissolved in water.

One ounce is 480 grains, and is a quick purgative dose for 12 mature fowls. An ordinary dose is half this quantity.

Fertility of Eggs.—Ten hens were separated from the male. The eggs laid each day were placed in an incubator and tested. Of the eggs laid the first four days after the male was taken away 70 per cent were fertile; of those laid the fifth day 60 per cent were fertile; the seventh, 40 per cent; the eighth, 12 per cent; the ninth, 2 per cent; the tenth, none. A test was made with six hens to see how soon the eggs became fertile after the males were placed with them. On the third day 30 per cent were fertile; on the fourth, 42 per cent; on the fifth, 50 per cent; on the sixth, 60 per cent; on the seventh, 70 per cent; on the tenth, 74 per cent. As rarely more than 75 per cent of the eggs produced under average conditions are fertile this goes to show that mating a hen ten days before the eggs are needed for hatching is sufficient.

Green Feed and Eggs.—At the West Virginia station Atwood con-

ducted a test during 360 days, with two flocks with 22 White Leghorns in each, to determine the value of green feed to promote egg production. The green feed was composed of apples, rape and cabbage. In other respects the feed for the two flocks was the same. Wheat, corn, oats, buckwheat, cornmeal, green cut bone and beef scrap were fed. Of these the flock given green feed consumed 58 pounds each, while the flock not receiving green feed consumed 61 pounds each, showing a slight advantage in the matter of costly feeds. During the 360 days the flock receiving green feed laid an average of 114 eggs each, while those not receiving green feed averaged only 90 eggs each. As these hens were all over five years of age this is a very good showing, the hens having green feed laying a little more than 25 per cent more eggs than those not having the green feed.

Grit.—Grit is absolutely necessary to the health of the fowls. There has been some dispute concerning the use of fowls make of grit. The larger number of investigators believe it is used solely to grind hard grains after they have entered the gizzard, but many breeders think the grit furnishes material for feathers, giving them gloss and hardness.

Hens Versus Incubators.—Some very interesting comparisons between hens and incubators for hatching and breeding chicks were made by Prof. Dryden when in charge of the Utah Experiment Station. A summary of these experiments gives the following results: From 879 eggs set, incubators hatched 533 chicks, or 60 per cent. From 279 eggs set, hens hatched 219 chicks, or 78.8 per cent. Eliminating eggs broken in the nests, the hens hatched 88.2 per cent of the

eggs set. The incubators hatched 78.5 per cent of the fertile eggs set, and the hens 96.5 per cent. Eggs incubated artificially tested out 22.7 per cent infertile, while those incubated by hens tested out 11.8 per cent infertile. The incubators showed 16.6 per cent dead in the shell and the hens 2.8 per cent. Chicks hatched under hens weighed heavier than chicks hatched in incubators. The mortality of hen-hatched chicks brooded in brooders was 10.8 per cent in four weeks, and of incubator chicks 33.5 per cent. The mortality of hen-hatched chicks brooded under hens was 2.2 per cent, and of incubator chicks 49.2 per cent. In other tests the mortality was 46.5 per cent, for incubator chicks brooded by hens, and 58.4 per cent brooded in brooders. Hen hatched chicks made a greater gain in weight than incubator chicks whether brooded by hens or brooders. In all these tests the eggs used were from the same breeding yards and alike in every respect.

Housing.—The conclusions derived from carefully and long-continued experiments, at several experiment stations, and on many private plants, agree that air-tight, artificially heated poultry houses are not necessary in any part of the country, and are sources of continual dissatisfaction and loss. (This chapter is quite full, but we have room left for only short sentences, which will suffice to show how simple the language is and yet how clear the information and instructions are given).

Laying Hens.—William Cook, the originator of the Orpington breed of fowls, told the writer that he could select a good laying hen every time by observing the short feathers that grow on each side at the base of the comb. If these feathers curl and are inclined to point forward the hen is a good layer, and if they lie smoothly, the points lying flat, the hen is a poor layer.

Milk Albumen for Fowls.—Tests with milk albumen in the place of beef scrap or beef meal showed that the albumen was not as effective as the meat feeds. The price at which it is sold makes it too costly to be profitable as long as beef scrap can be obtained almost anywhere. Milk, in any form, sweet, sour, or as buttermilk, is a very valuable feed for fowls of all kinds, as it takes the place of meat feeds to a considerable extent. Experiments showed that milk was worth about one cent a pound when fed to laying hens. Milk fed to laying hens or to growing chicks makes better returns than when fed to pigs.

Mineral Matter.—The mineral matter, or ash in the feed of a laying hen is so important that we want to emphasize the fact that unless feed contains a liberal quantity of mineral matter the hen cannot produce the largest number of eggs possible. There is nearly eight times as much mineral matter in the dry substance of an egg as there is in corn or wheat, and no system of feeding with grain can supply a good laying hen with enough mineral matter to manufacture eggs. To supply this deficiency we must feed crushed bone, oyster shell or limestone grit in abundance.

Overfat Hens.—The overfat hen is a myth. A hen never gets too fat to lay if she is given an opportunity to

take plenty of exercise. Hens may be confined and fed until they are too fat to be healthy, but it is almost impossible to feed a hen too much if she is compelled to hunt her feed by scratching for it in litter. The best laying hens are fed plenty of grain and beef scrap or green bone, and green stuff or its substitute, clover or alfalfa meal.

Pepper.—Pepper is frequently fed to laying hens in cold weather under the mistaken notion that it warms the bird. Pepper is stimulating and should never be fed to healthy fowls. It is sometimes useful in sickness in the flock. In case the flock seems to be afflicted with colds a little red pepper often seems to produce a good effect.

Poultry as Food.—The housewife who buys poultry at the same price at which she can get good cuts of beef is not wasting money. Farmers can well afford to eat poultry that they have raised on their farms rather than sell the poultry and buy other meats at the average market prices.

Poultry Feed, Low Cost.—Several persons have made much money by selling so called "poultry secrets" for making poultry feed cheaply, claiming to be able to make it at from 8 to 10 cents a bushel. These secrets merely tell how to sprout oats, wheat or barley, causing them to swell and grow green sprouts until the original quantity is largely increased. No nutritive value is added to the grain by sprouting, but a very palatable feed is produced, and probably the process of sprouting changes the starch into a more easily digested feed. The oats are wet and put into a box open enough in the bottom to allow surplus water to drain off. This box is kept in a warm place and warm water is sprinkled over the grain to keep it moist, but not wet. When it sprouts the sprouts are allowed to grow to a length of two inches or more and the feed is ready for use. Chicks, laying hens, and other poultry eat this greedily, and it is a very good feed, as it is something in the nature of green feed and grain.

A PRACTICAL POULTRY BOOK.

Miller Purvis, Editor of The Gazette, and a Widely Recognized Authority on That Subject

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Tests show where these shells have been used—duration of test 22 days—number of eggs 33; weight of eggs, 1489.6 grammes. Where Sharp Grits were fed—test 22 days—number of eggs 6; weight of eggs, 257.6 grammes. This is convincing argument why every poultry house or yard should have them. They'll make hens lay an egg a day, with firm, hard shell—less liable to break in shipment. Belle Brand Crushed Oyster Shells supply Carbonate of Lime in natural form, making them superior to any other poultry food on the market. Write for Free Catalogue to LOUIS GREBS, BALTIMORE, MD.

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In short, every known fact of value to keepers of poultry of any sort is stated in concise, simple language.

The most complete and useful work ever published on the subject.

Price, \$1.50 prepaid. Address The Breeder's Gazette, 385 Dearborn Street, Chicago, Ill.

TO RAISE ALFALFA.

The raising of alfalfa seed in the more humid eastern states should not, generally, be attempted, as it will not only interfere with obtaining full value in the hay crop, but the less fertile soil will not produce as vigorous seed as will the newer and richer lands west of the Missouri river.

At present the best seed for general use is produced between that river and the Rocky mountains. Utah produces a hardy seed, but much if not most of it is raised under irrigation, and, hence, at least theoretically, not deemed best adapted for regions dependent entirely upon soil moisture from rains.—From Coburn's "The Book of Alfalfa."

\$350 a Month--500 Hens

Edgar Briggs did it! BRIGGS, the Thomas A. Edison of the Poultry World—the man who wrote "Profits in Poultry Keeping Solved,"—fourth edition just now ready. No branch of mercantile business or farming pays the profit that poultry guarantees under the Briggs system.

discovery alone is now saving farmers and poultrymen thousands of dollars daily. He feeds his hens "poultry ensilage"—a processed feed that makes them lay regularly, even in winter, when egg prices are "out of sight." Briggs tells how to make the ensilage at not to exceed 15c per bushel. Briggs' Book contains literally hundreds of secrets, making poultry raising for every one a profitable business or side line.

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HOSTERMAN PUB. CO., Briggs' Desk 37, Springfield, Ohio.

THESE SICKLY-LOOKING CHICKS NOT FED OUR WAY

They wouldn't be wilted, forlorn and droopy as are these poor little fellows. What's the matter? Likely some one has been feeding a lot of table scraps, or sour bread, or some other indigestible mixture that is fermenting in their stomachs. Tomorrow the owner will find eight or ten dead, and wonder, "What killed my chicks?" Chicks are babies and must have baby food. That's why Puritan Chick Food is so successful in rearing chicks, keeping them well and holding down the death-rate. It just "gets" the interior mechanism of the digestive organs of a chick.

Puritan Chick Food (The Safe Kind)

has a delightful taste and odor to a little chick, because it is compounded of those very pure, wholesome and sweet elements that naturally attract it. Your little "puff-balls" will make things fly scratching; they are always happy and busy, when fed on it. Some of the fastest poultry plants use Puritan Chick Food. It pays them. It will pay you, no matter how small your flock. It is foresight, wisdom, economy and profit for you always to keep it on hand. It's true life insurance for your chicks, all other things being equal. We guarantee it so, and refund money if you're not satisfied. No fussing about it, either—your word is final. Puritan Chick Food is put up in 5-lb. boxes for 25c; 25-lb. bags \$1.00; 50-lb. bags \$1.75; 100-lb. bags \$3.25. Ask your dealer for it. If he hasn't it we'll supply you. Booklet free. Write now for it. Puritan-American Poultry Food Mfg. Co., Bound Brook, New Jersey



HOME BEAUTIFUL

Conducted by Georgie Middleton Fisher

CHILDREN.

Oh, little people from the hills of Dawn,
What set a-straying hitherward your feet,
Still rosy from your wanderings on her peaks,
Still dewy from her vales of asphodel,
And all the lucene of God's unweaned morn
Still shining in your confident, clear eyes?
Was it some new-spiced flower farther down
The western slope, whose gandy tints allured?
Some nodding, dusty daisy whose frank glance
Outvied the breathless, stirless purity
Of asphodels that, like unnoted stars,
Slow whiten on the windless fields elysian?
So soon the dust upon the tender feet
That slow and slower trudge, the straining eyes,
The reaching hands, grown tired of plucking now,
Yet clasping to the end some wayside weed.

Charles T. Rogers, in June Century.

BE SYMPATHETIC AND JUST.

I've just been reading about some children who left home, hoping to find life more agreeable than they found it at home, although their parents were well-to-do and had provided them with everything they needed—so far as it could be purchased.
But something was lacking, or they would not have left home. What was it? Sympathy. They were made miserable by continual complaints, they could not please their parents no matter how much they tried. They felt as if they were in bondage and finally they grew to believe that any amount of hardship, with freedom from nagging, would be better than a comfortable home and unsympathetic parents.

Really, now, could you blame those children for running away? Parents, don't be afraid to love and caress your children. It is easy when they are babies. Do not let it ever become difficult. They long for mother love even when they are grown to manhood and womanhood, and will appreciate it, and you'll never be sorry for giving it to them. It will not be difficult to keep their confidence if you make them realize that you really love them. It will not be difficult to get them to obey when you once make them realize that your commands are prompted by love. Give them credit for all the good there is in them. Think how good they are instead of how bad, and you'll be surprised at the results and not the least bit sorry.

LADIES WANTED—TO PURCHASE their groceries, soaps, etc., by our Factory-to-Family plan. We give you full value for your money and in addition the same value in premiums. We are also making a SPECIAL OFFER of FIVE EXTRA CERTIFICATES to secretaries of Clubs. Write for free catalogue. Papworth Premium Co., 512 St. Marks Ave., Syracuse, N. Y.

A FEW IDEAS ON STRAWBERRIES.

Corn Meal Shortcake.

We make corn bread—or "Johnny cake," as the old-fashioned housewives call it—and bake it very thin, in round pie tins. It is hardly more than two crusts when baked. Three of these tinsful are used for a cake. We butter them, and pile them one over the other, with crushed strawberries between. It is quickly prepared, it makes a delicious and hearty breakfast, and may be eaten with or without cream, as preferred, or according to the state of the cream jar.

Strawberry Cream.

Bruise a quart of strawberries in a cooking bowl with a coffee cupful of powdered sugar. Rub through a sieve, and mix with a pint of whipped cream, and nearly two ounces of gelatine, previously prepared. Pour this into a mould, and set it on the ice until it has become firm, then turn it into a fruit dish, and place fresh strawberries all about it.

Strawberry Pudding.

Toast and butter slices of stale bread, and arrange in layers in a buttered pudding dish, with plenty of strawberries between the layers. Sweeten the berries to taste. Bake half an hour, and serve hot. Don't be too economical with your berries, for they must supply sufficient juice to make the toasted bread into pudding.

Strawberry Tapioca.

Put a teaspoonful of tapioca and one of salt into a pint and a half of strawberry juice, and let it stand on the back of the range where it will keep warm, but not cook, for half a day. Just before serving, let it come to a boil, stir in as many fresh strawberries as you can, and serve with sweetened cream.

Strawberry Biscuit.

Make a rich biscuit dough, cut the biscuit with a small biscuit cutter, so that they will not be much larger than an inch in diameter when baked. Take them hot from the oven, and let them boil in a dish of stewed strawberries, and serve with sweetened cream, and some nice fresh strawberries, if obtainable.

Strawberry Shortcake.

Make a rich biscuit dough, roll it thin, place in pie tin and generously spread with butter, and then put on another layer of the biscuit dough, butter again, and add a third layer. When this has baked, the layers are easily pulled apart. Fill with fresh strawberries, sweetened, and serve.

Dried Strawberries.

Don't forget to dry a few strawberries for winter pies and sauce. I spread them on new tin plates, set them in the hot sun and cover them with glass. It is surprising how quickly they will dry.

Weisbaden Strawberry Preserves.

To each quart of berries allow half a pound of sugar. Sprinkle the sugar through and over them and let stand in a cool place over night. (I lower them in the well.) Next morning drain off the juice, reject the berries

or use for jam, and to every pound of sugar added, add one pound of rock candy (I prefer the red) and boil fifteen minutes. In the meantime test and warm your cans, stand them in a pan of warm water. Fill the cans with large, perfect fruit, fresh from the patch, packing it solidly as possible without mashing the berries; then fill with the boiling syrup.

Uncooked Sun Preserves.

Weigh the fruit and to each pound allow three-quarters of a pound of granulated sugar; put a layer of sugar, a layer of fruit, another layer of sugar in a large shallow vessel, cover with a pane of glass and set in the hot sun for two days. The evening of the second day lift the berries with a fork and put in jelly glasses. Boil the syrup till thick (about five minutes), and pour over them. When cold, cover with melted paraffine, then put on the tin lids. This is delicious and will keep a year. In New York sun cooked strawberries sell at one dollar a pound, which will give you an idea of their delicious flavor and attractive appearance.

Strawberry Fritters.

Mix one tablespoonful of salad oil with the grated peel of one-half lemon and a little flour. When smooth add the whites of three well whisked eggs in a little white wine. The mixture should be of the consistency of thick cream. Pick the tops off from large, ripe strawberries, and drop the fruit into the prepared batter, put a lump of butter into a deep frying pan, and when it is boiling, drop the batter with the strawberries from a tablespoon into the fat. When nicely cooked, remove the fritters carefully, drain them on a sieve or in a colander, then arrange them on a hot dish, sift powdered sugar over and serve. This is of the finest.

Strawberry Crusts.

Prepare some small, round buns that can be split into halves, buttered and warmed in the oven; sprinkle powdered sugar over some strawberries, bruise them slightly, and allow them to stand for a considerable length of time, mix the fruit and sugar, cover the hot buns with this, allow them to get cold, then serve in a glass dish. This is a most excellent dessert to serve cold.

Paint Without Oil

Remarkable Discovery That Cuts Down the Cost of Paint Seventy-Five Per Cent.

A Free Trial Package is Mailed to Everyone Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powderpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much.

Write to Mr. A. L. Rice, Manufr., 47 North St., Adams, N. Y., and he will send you a free trial package, also color card and full information showing you how you can save a good many dollars. Write to-day.

Strawberry Mousse.

To a pint of thick cream add the juice of a lemon and a cup of strawberry preserves; beat until thick to the bottom. Have a three-pint mould lined with lemon, orange or pineapple sherbet, pour the mixture in the center and cover with more of the sherbet. Adjust the cover over paper and pack in ice and salt for two hours.

QUESTIONABLE ECONOMY.

Are you acquainted with the style of housekeeper who invariably overloads her table, and cooks too much of everything in order not to appear stingy? She is wasteful and lacking in good taste, but she doesn't know that, for her over-developed bump of generosity allows her but one view of the situation, which is that no one can call her stingy.

And how she does despise the economically inclined! Yet she has occasional attacks of economy when conscience, or a depleted pocketbook, or an irate husband calls attention to the results of her lavishness.

For instance, her cupboard is usually pretty well filled with dishes of left-over foods that she didn't quite like to throw away. As a rule, she keeps them until they become sour, and then throws them away; but when under the influence of one of her economical streaks she decides that the left-overs must be utilized, so she saves them by mixing them with twice their value in other foods, and serves up a dish that is "neither fish, flesh nor fowl," and is bad enough to make a good Christian man swear a "blue streak." Then she declares that she'll never again try to be economical, and she doesn't until the time comes for another domestic upheaval.

The truly economical housewife buys only what she needs and knows she can afford; but what she does buy is so good that none need be thrown away, nor is she obliged to spend as much more as it cost in making it fit to eat.

Then she cooks it so carefully that every mouthful is eatable, and plans so wisely that very little is left over. If she cannot find time to cook what she would like to she cooks only what she has time to cook well, for she has sense enough to know that one well-cooked, daintily served dish is preferable to half a dozen of those that are carelessly prepared.

In my opinion this is a far greater art than to know how to prepare an infinite variety of the "made dishes" that always reminds one of boarding-house hash.

TO DRIVE NAILS EASILY, AND OTHER WRINKLES.

Isn't it an odd sensation to be instructed by one's children? Has that experience been yours? Yesterday, when trying to mend an old couch so that it could be used on the porch, I tried in vain to drive nails into the hard wood. Then my eldest son came along, saw what I was trying to do, took some of the nails, dipped them into grease and drove them into

CACTI FREE.

10 specimens free with each \$25 order. Dealers take notice—order at once.

MRS. S. I. PATTISON, Wholesale Collector Cacti, Mesilla Park, New Mexico.

the wood without difficulty. He said he should have used soap had the grease not been handy.

And that reminds me: Soon after my eldest daughter returned from school I found her rubbing hard soap on the bottom of the bureau drawers. They had been hard to draw out for some time, but I did not know the difficulty could be removed so easily. After the soaping they worked like a charm.

The same girl mixes salt with flour that is to be used for gravies. She stirs it in well, then adds the milk or water and the flour does not lump at all. She learned that in the cooking class to which she belonged while attending school.

She rubs salt on forks and spoons that are discolored with egg stains and it removes the stain almost immediately.

We have given the two eldest, a boy and a girl, a year at an agricultural college, and it has been money well invested.

MOTHERS-IN-LAW IN BETHLEHEM.

From Robert Hichens' "From Jericho to Bethlehem," in June "Century."

Many of the people in Bethlehem emigrate, for they have no fear of travel and make excellent colonists. It is possible to come upon men of Bethlehem in eastern Africa and even in Hayti. Now for the first time I saw the remarkable head-dresses for which the married women of Bethlehem are famous. They are large and entirely conceal the hair. I was told that the foundation is a fez, stiffened and covered with cotton. Chains of silver on which are strung rows of silver coins ornament the front, and a great white veil made of cotton gives the finishing touch. Strongly built and active, the matrons of Bethlehem look very imposing as they go about their affairs, and I should scarcely think they live in great subjection to their husbands. That they make alarming mothers-in-laws I can well believe. There is a proverb in Palestine, "Were the mother-in-law to love her daughter-in-law, dogs would go into paradise."

AN IDEA ON POLISHING STOVE
Did you ever try mixing a little vinegar with your stove polish? It prevents the dust from flying when you polish the stove, and you can get a good polish with less elbow grease. If my stove is rusty, I always rub it well with kerosene before applying the polish. I keep all the old stocking feet to pull over my hands before polishing the stove, as I find them a great protection, and I do like to keep my hands as nice as possible. I fill under my finger nails with lard before polishing the stove, and when it is washed out, you would never guess that I'd been doing dirty work. I also use lard before working in my flower garden.

Another thing that is nice to know is that soda will remove grease from unpainted wood. I keep it on hand for washing purposes, and when I get grease on my unpainted kitchen floor, as I do quite frequently, I sprinkle on soda.

A \$100 Typewriter for 17 Cents a Day!

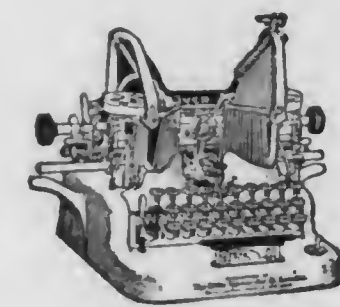
Please read the headline over again. Then its tremendous significance will dawn upon you.

An Oliver Typewriter—the standard visible writer—the \$100 machine—the most highly perfected typewriter on the market—yours for 17 cents a day!

The typewriter whose conquest of the commercial world is a matter of business history—yours for 17 cents a day!

The typewriter that is equipped with scores of such conveniences as "The Balance Shift"—"The Ruling Device"—"The Double Release"—"The Locomotive Base"—"The Automatic Spacer"—"The Automatic Tabulator"—"The Disappearing Indicator"—"The Adjustable Paper Fingers"—"The Scientific Condensed Keyboard"—all

Yours For 17 Cents a Day!



We announced this new sales plan recently, just to feel the pulse of the people. Simply a small cash payment—then 17 cents a day. That is the plan in a nutshell.

The result has been such a deluge of applications for machines that we are simply astounded.

The demand comes from people of all classes, all ages, all occupations. The majority of inquiries has come from people of known financial standing who were attracted by the novelty of the proposition. An impressive demonstration of the immense popularity of the Oliver Typewriter.

A startling confirmation of our belief that the Era of Universal Typewriting is at hand.

A Quarter of a Million People are Making Money with "The Oliver Typewriter"

THE STANDARD VISIBLE WRITER
The Oliver Typewriter is a money-maker, right from the word "go." So easy to run that beginners soon get in the "expert" class. Earn as you learn. Let the machine pay the 17 cents a day—and all above that is yours.

Wherever you are, there's work to be done and money to be made by using the Oliver. The business world is calling for Oliver operators. There are not enough to supply the demand. Their salaries are considerably above those of many classes of workers.

"An Oliver Typewriter in Every Home!"

That is our battle cry today. We have made the Oliver supreme in usefulness and absolutely indispensable in business. Now comes the conquest of the home.

The simplicity and strength of the Oliver fit it for family use. It is becoming an important factor in the home training of young people. An educator as well as a money maker.

Our new selling plan puts the Oliver on the threshold of every home in America. Will you close the door of your home or office on this remarkable Oliver opportunity?

Write for further details of our easy offer and a free copy of the new Oliver Catalog. Address

The Oliver Typewriter Company
310 Broadway,
New York City, N. Y.

STUDIES IN HORSE BREEDING.

By C. L. Carlson.

No industry connected with the soil, or carried on in connection with the farms of this country, has yielded so liberal returns for the labor and money employed, as the breeding of good horses. No live stock bred upon the farms of the United States has increased in value so rapidly as horses and mules. In 1869 the value of all horses and mules owned in the United States was \$469,000,000. In 1899 the same live stock was valued at \$607,000,000. At the present time the same live stock has reached the enormous sum of \$2,500,000,000.

Although the breeding of horses and mules is now one of our most profitable industries, little has ever been done in a public way to encourage it, by either the Federal or State Governments, or to aid the farmer and breeder in adopting better methods of producing them. Bulletins without number, upon other subjects of much less importance, have been annually forthcoming, yet nothing upon that of producing better horses, or of using more economical methods in their production.

The same is true of individual help in the way of breeding horses. No embryologist has ever made a special study of the horse. There are reasons for this. The great Teutonic race has furnished the most eminent embryologists. In their native land, even more than elsewhere, horses have always represented too high a value to be sacrificed for such purposes. Mares dying, and which could be had for investigation of this kind, were usually non-breeders, because of old age. So far as the horse is concerned, how the ovaries perform their various functions; how, when, and where conception takes place; or of the early development of the foetus and foetal membranes, nothing is really known.

The world's urgent need today, is for more men with special training to carry on its great work. In its last and best analysis, the business of breeding horses does not differ from any other. Only those best fitted, best equipped, for the business shall survive. No rapid progress in producing better horses need be expected until more scientific means be employed in producing them.

Then, again, I believe one is justified in appealing to the civic pride of the country, which is more or less developed in all mankind, upon the question of producing better horses. I have observed that throughout the whole rural world, the best and highest type of citizenship is always to be found in the districts of the best bred stock. To improve the live stock of a country is a potent means of raising its citizenship. The production of high-class animals calls in to activity intelligence of the highest order.

No country is better fitted because of its climate; its nutritious grasses; its abundance of grain; its pure water, and the high intelligence of its breeders, for the production of high class horses than a large part of the United States. No better evidence of this is needed than the fact that in nearly all the breeds we have produced many specimens unsurpassed in any country, and what can be done

by a few breeders can be done by many.

The foregoing is the introduction to a new book on horse breeding, published by the author, Mr. G. L. Carlson, himself at his home in Norfolk, Nebraska, and sold at \$2 per copy. The book is fully illustrated and, as we have said so often of other books, but there is nothing better to say, ought to be read and owned by every farmer who breeds and raises any kind of a horse. In our next issue we are going to give you a chapter from the book to show you how well worth while it is to know what Mr. Carlson has to say on the subject.

DISTEMPER IN HORSES.

Distemper, or strangles, is a disease principally affecting young horses. It is due to a germ, belonging to the streptococci group. The disease is accompanied by high fever, catarrhal inflammation of the mucous membranes, especially of the nasal passages, and as a result of this condition, a discharge from the nose. There is a swelling of the lymph glands under the jaw, which later results in abscess formation.

A horse with distemper can communicate it to a healthy one.

The germs are found in the discharge from the nostrils and in the pus from the abscess which forms under the jaw and later breaks.

The majority of cases of distemper occurs before the age of five years.

The constitutional disturbances caused by the shedding of the teeth, and cutting same, as well as impure air in poorly ventilated stables, overworked and poorly fed animals, are factors that weaken the resistance and make infection possible to produce the disease.

The disease is more common in the spring and fall of the year, particularly the former, on account of the chill received as a result of the sudden changes at these seasons of the year.

The disease can also be transmitted from dam to offspring through the milk.

The animal usually develops the disease in from three days to three weeks after being exposed to the contagion.

Animals affected with distemper should not be sold. Young animals should not be brought in contact with those affected nor watered out of the same bucket, nor come in contact with any other property until it has been thoroughly disinfected. An animal should not be castrated while suffering with strangles.

A vaccine made from the specific germ causing this distress is prepared in the laboratory of the Veterinary Department of the Colorado Agricultural College.

This vaccine is very useful in combating distemper, both as a preventive and as a cure, and promises to be of as great value as the antisuppurative vaccine made in the same laboratory from the germs which cause poll evil, fistula, and wound infections.

Like the antisuppurative vaccine, to get the best results it must be used by one who is trained in the diseases of the lower animals and understands the use of vaccine on same. It is therefore advisable to have it used

Years of Grand Results

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May 21, 1909.
Dr. B. J. Kendall Co.,
I have used your
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Keeps legs sound and trim as no other preparation
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Joints and all Lameness. Equally famed as home-
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book, "A Treatise on the Horse," or write to—
DR. B. J. KENDALL CO., ENOSBURG FALLS, VT.

by a competent graduate veterinarian.
—B. F. Kaupp, Colorado Agricultural
College, Fort Collins.

WHAT TO DO WITH WET SHOES.

When boots or shoes are wet through, do not dry them by the fire, but, as soon as they are taken off, fill them quite full with dry oats. The oats will rapidly absorb every vestige of damp from the wet lea-

SAVE HALF THE LABOR

in sawing wood. You can do this and at the same time, cut more wood in a given time than in any other way by using



The IRELAND WOOD SAWING MACHINE
Table is mounted on grooved rolls, moves easily—cut of saw is down instead of against the operator as in old style machines. Must be seen to be appreciated. We also manufacture Drag Saws, Saw and Shingle Mills.

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And I can prove it. Forty-five years ago I commenced selling scales to the user letting him have a free trial and never asking a cent in return until he had found that my scale was exactly as represented. I have patented the only reliable **FITLESS STOCK SCALE**, complete with steel frame, compound beam and beam box without extra charge, sold at a fair price. My scale is not cheapest, but **BEST**. I will send you full information, a scale on approval, or book, "Reasons for Owning a Scale," if you address: "JONES He Pays The Freight," 104 C St., BINGHAMTON, N. Y.

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From \$2.50 up.

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RAT CORN

No Odors or Smells KILLS RATS AND MICE No Poison

It mummifies them. No matter where they die, they simply DRY UP. Positively do not smell.

Will not kill cats, dogs or man.

Rat Corn is a new and scientific discovery, and without a doubt the greatest rat destroyer in the world; the only one that kills rats without any bad, dangerous or disagreeable effects. A trial will convince you.

25 cents, 50 cents and \$1.00 per can.

Ask your Dealer or sent by mail on receipt of price. Send for booklet "How to Destroy Rats" FREE. Made only by

BOTANICAL MANUFACTURING CO.

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PHILADELPHIA, PA., October 23, 1909.

Botanical Manufacturing Co.

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After eating Rat Corn He's mummified

ther. As it absorbs the moisture it swells and fills the boot tightly, keeping its form good, and dries the leather without hardening it. In the morning shake out the oats and hang them—the oats—in a bag near the fire to dry, ready for further use.

DO YOU NEED FENCING?

Every farmer who needs fencing of any kind, should get "American Fence News." It tells a good many interesting facts that you really ought to know before you decide on or buy any fencing. The book is beautifully printed, contains many illustrations and tells how to fence for best effect. It tells how to make permanent wire fence, and contains the whole story of Fence Building. It also contains an interesting and valuable article on "The Operation of a Farm," showing the best methods of rotating crops for biggest profits. Then there is a very interesting article showing how you can save work, time and money, avoid worry, increase your income and get more fun out of life. Also you will find an article on "Ornamenting the Farm."

Last but not least by any means, you will find some facts about American Fence. It will indeed pay you to send a postal card addressed personally to Mr. F. Baackes, Vice-President and General Sales Agent of American Steel & Wire Co., Chicago, Ill., for copy of "American Fence News."

What to Do With the Boar.

The boar of eight months old or older will do better if kept by himself; at least, he should not be where sows or gilts may arouse him. He should be kept in a comfortable pen, with a lot of pasture adjoining, and supplied with a variety of nutritious food, which means something more than dry corn with an occasional drink of diluted dishwater. The permanent quarters should be provided with a view to furnish sunlight, exercise, dry warmth and cleanliness. These should be located that the sows may be conveniently brought to him for service. A large pen is not needed—ten feet square will do—but a yard and pasture should each be adjacent. The yard will be needed for service and for his exercise in the breeding season, and the pasture, which may be an acre, or less, should afford him water, shade, grass, alfalfa or other succulent food.—From Cornburn's "Swine in America."

MILK VERSUS BEEF.

The Cow a Wonderful Producer of Human Food.

A Holstein cow owned by the Dairy Department of the University of Missouri in one year produced more human food in her milk than is contained in the complete carcasses of four steers weighing 1250 pounds each. This statement, impossible as it seems,

Headquarters for Breeders in N. Y.



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None Just as Good

is not only true, but does not even do full justice to the cow. The solids in the milk which are completely digested and used by the body are counted against the entire carcass of the steer which is only in part edible.

The cow that performed this feat of producing the equivalent of four steers is Princess Carlotta. In the year she produced 18,405 pounds of milk. Below is given the amount of proteins, fat, sugar and ash contained in this milk and the amount of the same substance found by Dr. P. F. Trowbridge in an analysis made of the carcass of a fat steer weighing 1250 pounds.

	18,405 lbs. milk	1250-lb. steer
Proteid	552 lbs.	172 lbs.
Fat	618 lbs.	333 lbs.
Sugar	920 lbs.	...
Ash	128 lbs.	43 lbs.
Total	2218 lbs.	548 lbs.

The amount of dry matter in the milk was 2218 pounds, all of which is edible and digestible.

The steer with a live weight of 1250 pounds, contained 56 per cent of water in the carcass, leaving a total of 548 pounds of dry matter. In this dry matter of the steer is included hair, and hide, bones and tendons, organs of digestion and respiration; in fact, the entire animal, a considerable portion of which is not edible. The analysis of the steer's carcass was made from samples taken after grinding up together one-half of the complete car-

cass and is not in any sense an estimation of the composition of the carcass.

Princess Carlotta produced proteins sufficient for more than three steers; nearly fat enough for two; ash enough to build the skeleton for three, and in addition, produced 920 pounds of milk sugar worth as much per pound for food as ordinary sugar.

These figures show the remarkable efficiency of the cow as a producer of human food. It is because of this economical use of food that the dairy cow and not the steer is kept on high-priced lands. When land is cheap and feed abundant the meat producing animals predominate, but when the land becomes high in value and feed expensive the farmer turns to the dairy cow.—C. H. Eckles, Professor Dairy Husbandry, University of Missouri.

We do not remember having seen such a comparison before, and find it rather interesting.

HOLLOW CEMENT POSTS.

Many people are impressed with the value of cement posts for fencing, grape vine trellises or clothes line poles. When properly built they are practically everlasting and are much more uniform and satisfactory in appearance than the ordinary posts so used. Concrete posts may be built either solid or hollow but in either

case must be reinforced. The solid posts are heavier to handle, require more material and are no stronger than are the hollow ones. It is an easy matter to build a hollow concrete post if one knows how. The outer form is built of boards nailed together in box shape so that the inner surface will correspond in size and shape to the outer surface of the post. A thin layer of rather rich concrete is laid in the bottom of the form, then the reinforcing rods, which are generally made of No. 10 fence wire twisted in strands of two or three, are laid near the corners. Over this is tamped more concrete until the height corresponds to the position of the reinforcing rods first placed. Two other rods are then put in position and concrete tamped in to fill the box. After seasoning for two days the post may be laid away in the shade to harden though it should be kept wet for a couple of weeks. If it is desired to build hollow posts select a stick of wood one inch square and the length of the post for the center of the core. On each side of this lay a "half-round" of the proper dimensions and build the cement around the core. The advantage of this combination lies in the fact that the central square stick can be easily removed and this will loosen the half rounds which may then be taken out and used in other posts. This is a little knack that is well worth the trying.

THE EASTERN FARMER BLOODED STOCK DAIRYMAN AND POULTRY RAISER



JULY

MAUD WAS WISE.

"Come into the garden, Maud."

But Maud was much too wise.

"Oh, no," said she, "the corn has ears"

And the potatoes all have eyes."

—Boston Transcript.

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OF INTEREST TO YOU

AGRICULTURE THE BASIS.

There are those who would minimize the importance of agriculture as a factor in making the annual fair a success, especially some of the larger exhibitions, where manufactured products, applied arts and the like have come into prominence of late years. Valuable and important as these things are to the modern annual exhibition, a good display of the products of the farm is essential to the success of any fair, large or small. In fact, the annual fair had its origin in the desire to show the people what the country could do in the way of producing farm products and high class live stock. The annual fair was founded on agriculture, and agriculture must continue to be the foundation upon which all successful exhibitions are built up. A country that is not an agricultural country cannot maintain a successful fair year in and year out. While agriculture must always form an important part of every fair, agriculture is more greatly benefitted than any other calling by the existence of the annual exhibition. It would be difficult to estimate the good the annual fair, large or small, has done in promoting better agriculture and in advancing the interests of the farmer. The casual observer may not see its value in this connection, but the leaven is working in the minds of hundreds of thousands of people from the farm and elsewhere who every year spend a day or two at their nearest exhibition.

A SAFE PLAN FOR THE AVERAGE FARMER.

For the average man mixed farming affords greater opportunities for success, than specializing in any one line of farming. He has more than one string to his bow, and if a failure in one line results in any one year he has something else to fall back upon. This is not saying that there

is no place for the specialist in agriculture. But to specialize successfully there must be inclination and special knowledge and ability along the line one desires to specialize in. The dairyman, for example, must make a study of cow-keeping. He must know how to keep up his herd to its highest producing power. He must study each individual cow's needs. He has on y one string to his bow and must perforce bend his energies to prevent any possibility of failure. If he fails all is lost. The same is true of other specialties. In mixed farming, while intimate knowledge of the different branches is necessary to make the greatest success, the possibilities of a total failure are so remote as to make the undertaking reasonably secure. For this reason, where conditions are favorable, mixed farming affords a sure and safe investment and will give a good return for time and money expended upon it. There is the opportunity to specialize, too. A good market for certain products may afford an opportunity for specializing a little, without interfering much with other farming operations.

Good Neighbors.

People in cities like to live in a good neighborhood, that is, on a street that has a respectable appearance and whose inhabitants are respectable and agreeable. Important as this is to the people living in the city, it is of infinitely more importance to those living in the country. The man living in the city is more independent of his neighbor than the man living in the country. He can get along without speaking to the man living in the next house if he wants to. Not so the man in the country. The farmer is dependent upon his neighbor for good fellowship, if nothing else, and it is vastly more important to him that he should

live in a good neighborhood than to the man living in the city. But what constitutes a good neighborhood? It is not good farmers nor good farm houses and buildings, important as these are in adding to the value of a locality. A good neighborhood means something more than these things. It is the people themselves, who live in a neighborhood, who give it a good or bad reputation. One thing that will make for a good neighborhood is for every man in it to speak well of his neighbors. There must be a spirit of helpfulness, a desire to be sociable and friendly, with a lack of strife and jealousy. When these conditions are obtained in any locality, it may be truthfully called a good neighborhood and the people living there classed as good neighbors.

HELP THE AVERAGE FARMER.

The work carried on by agricultural experiment stations and experimental farms should be designed to help the average farmer. If it does not do this it largely fails in the object for which such institutions were created. The farmer who is a leader in his calling is well able to take care of himself. It is the man a few grades below him who needs help most, and any work designed by government or anyone else that fails to reach the average farmer and lift him up to larger and better things in the management of his farm, and in the gaining of a livelihood from the soil, is of little real benefit to the agriculture of any country. Some would confine the work of the experiment station to strictly scientific research. While research into the deeper things affecting agriculture is valuable, it must be borne in mind that the data obtained from such research, can only be utilized by the leaders in agriculture, by men capable of understanding these deeper things

BLOODED STOCK for July.

and putting them to practical account on their own farms. The average tiller of the soil will not gain much direct benefit from them. It is the more simple experiment, that, if needs be, can be applied under average farm conditions, that accomplishes the most good, and especially in a country like this, where the average farmer is not a close student of conditions affecting his own business.

VALUE OF PRACTICAL DEMONSTRATIONS.

The demonstration farm seems to be gaining in popularity. Scarcely a single one of our leading agricultural states is without these farms. Those states which have not made appropriations for this work will in all probability do so within a few months.

The advantage of teaching by doing is one of the most practical methods. These demonstration farms teach valuable lessons because they are in a community where the lesson is most needed. Conditions are so variable that it is almost impossible for our state experiment stations to answer specific problems connected with soil culture, farm crops, etc., in many of the localities. The station's work is to outline in a large way, and to direct the demonstration farm problems. In short, the demonstration farm is a little experiment station designed to show in a practical way the value of good and poor culture, pure and impure seed, together with other valuable lessons. A number of states have gone so far as to appropriate money for one demonstration farm in each township, while others are contented with a single farm in each county.

MANUFACTURERS ATTACKED.

Editor, Farm and Dairy.—I have a lemon I would like to hand the manufacturers. I was born and raised on a Canadian farm. My work lately has been mostly on the United States side. Thus I have had an opportunity to learn how things are on both sides.

Many of the small manufactured articles, necessities, which we use every day and have to buy whether we like them or not, are of very poor quality compared with United States made goods. I might mention a few. Take soap, for instance; do any of our factories give us anything to compare with Ivory or Fairy Soap? These soaps are sent to us after duty is paid, for the same prices as our Canadian factories charge for a much inferior article. Take United States Shoes as compared with ours in shape, comfort, style and price. The United States shoe is better in every detail, and after the duty is paid, we can still buy them for the price that we would have to pay for an inferior Canadian made shoe.

Hosiery and Underwear.

In stockings we can't buy the United States article; the stores don't have them. Our factories don't know how to make the nice fitting, fine quality hosiery that we can get on the United States side for less money than we have to pay for the clumsy, coarse, ill-fitting ones made on this side. Canadian made underwear is coarse, thick, clumsy and ill-fitting when compared with United States makes. Sweaters are the same. Our factories seem to have about only three styles

to copy from, and they make them especially narrow on the shoulders and pucker them in the armholes—but we have to buy them. We can't get anything else.

Take the Canadian magazines. We have a few good ones and the others are improving, but we pay as much for them as we would for a United States magazine that is double the size and better in the quality of its reading matter.

(Note.—There is no duty on United States publications entering Canada, but there is an extra post office charge. This charge is the same as that imposed by the United States government on Canadian publications entering the States. The criticism of our correspondent does not apply to Canadian agricultural publications, which are even better than those of the United States.—Editor.)

Take our farmers' lanterns and lantern globes—scarcely worth buying, but we have got to take them or none. Is the lantern made wrong or is the glass in the globe no good? At any rate, the globes often crack at the first lighting and make good business for the manufacturer of globes.

Take wash buttons or crochet buttons for wash dresses; we can't buy them on this side. They never heard of them in many of our stores, and yet they are one of the most sensible and comforting things a woman ever sewed on a wash dress.

Less Protection—Fair Play.

The things herein mentioned are for the most part only small things, but the big things have been well discussed by others. It is time for a little fair play and less protection to the manufacturers unless they are willing to meet us at least half way—most of our manufacturers are in Europe travelling in their motor cars; their daughters often are educated there; many of their sons live in luxury and idleness. Perhaps if they did not have to live in such luxury they would not need such high protection while many of us have to work 12 hours a day to obtain barely the necessities of life. I am not in favor of supporting the manufacturers in the style most of them think necessary. Let them give us even nearly as good articles for the same price as are current elsewhere, and we will be more willing for protection—"ONE FOR FAIR PLAY." Belleville, Ont.

FEWER WARSHIPS.

The great railroad Magnate, J. J. Hill, says in a late issue of The World's Work: "If I could have my way, I should build a couple of warships a year less. I would take that five or six millions of dollars a year and start at least 1,000 agricultural schools at \$5,000 a year each in the shape of model farms. This model farm would be simply a tract of land conforming in size, soil treatment, crop selection and rotation, and methods of cultivation, to modern agricultural methods. Its purpose would be to furnish to all its neighborhood a working model for common instruction. Cultivating, perhaps from 40 to 60 acres, it could exhibit on that area the advantages of thorough tillage which the small farm makes pos-

sible; of seed specially chosen and tested by experiment at Agricultural College farms; of proper fertilization, stock raising, alternation of crops and the whole scientific and improved system of cultivation, seeding, harvesting and marketing. The farmers of a country could see, must see, as they passed its borders how their daily labor might bring increased and improved results."

Even in this, one recognizes the business sagacity of the shrewd monopolist. He would have more products raised for his railroads to transport. But even in spite of this apparent selfishness there remains the fact that the large financial corporations will back up increased expenditures towards improved and advanced agricultural education, not only along the lines of fruit growing, but in every branch of the basic industry of all industries Agricultural.

BALLAD OF THE FARMER.

The Israelites once made a calf
Of gold and raised it up on high,
Quite high, but not so high by half
As modern calves are wont to fly.
The farmer winks the other eye,
When at the price we moan and groan.
We used to skin him, sell or buy—
To-day he's come into his own.

The hen that laid the golden egg,
According as the fables say,
Just now is taken down a peg
By hens of ordinary lay.
The farmer smiles and takes away
Our money like a bold brigand,
We used to own him once—to-day,
Alas! we're eating from his hand.

The farmer has an eye for biz,
Full well he knows all flesh is grass,
Also that all the grass is his.
He used to be a docile ass.
To whom, in pity, we could pass
The straw when we had threshed the grain.

To-day he's in another class:
He's come into his own again.

He's smiling at the price of wheat,
He's tickled at the price of hay,
He's laughing at the price of meat,
The cost of living makes him gaw.
For things are coming fast his way.
He isn't buying gold bricks now
And mortgaging the farm to pay,
At last the farmer's learning how.

His ox, his ass, his swine, his sheep.
And all his stocks are over paid,
No more on sore backed mules he'll creep,

He's riding in a touring car,
His wagon's hitched onto a star.
His lean and fallow years are passed,
He going fast, he's going far,
He's laughing best, he's laughing last.

L'Envoi.

The farmer's garnering the dust
And adding shekels to his hoard,
For board with him the whole world must,
And he can fix the price of board.
—N. Y. Sun.

THE COW AND THE DAIRY

HOW THE COW MAKES MILK. By George Rice.

The common idea would seem to be that the dairy cow makes her milk something on the principle of a cider mill, grinds the feed up, presses it, and all that is to be done is to turn the tap (teat) and draw off the "juice." Hence it is a waste of feed to give a cow more than enough to keep her alive when she is not milking. This theory would seem to be supported from the fact that a succulent ration is recommended. It contains more "juice" certainly, but then the juice the cow gives is quite different from that contained in the feed.

As in cider making it makes a difference how the pulp and straw is laid. Some are anxious to know how those fellows lay the feed when they produce such large records. But how is it explained on this theory when a cow gives in her milk much more nutriment than was contained in her feed and besides gets her own support from that feed, while still a large percentage is to be found in the excrement that has not been "extracted."

Cider Mill Idea.

But it sure must have been the cider mill idea that the dairy authorities of (not) a "far off country" and not many centuries ago had in their minds when in the dairy test, which had been carried on for some years to show what big work some cows would do, they then seemed to have the notion that after all, perhaps, a small yielding cow was the best. If she did not give so much of the "juice" it must be because she did not grind up so much "pulp." If a smaller yielder of one breed was better than a larger yielder of another breed, it should follow that a smaller yielder of any breed was better than a larger yielder of the breed. The foolishness of this was soon shown up, when a large yielding cow not only showed her ability to make a large return for food given, but also would go one better and give a good yield for a few days or a week without food at all.

In a certain experiment a cow was fed only enough food to support life, yet, she went on producing milk with but a slight decrease for 30 days. At that time she had become so weak she could scarcely get up and down and this was as far as was deemed safe to carry on the test. The flesh and strength from her own body was taken for her production. Perhaps it would be more correct to say that she produced through her nervous organization. Through the nerves she drew the strength from her own body. A cow of less fine nervous organization would not have been able to do this. She would have dried up instead.

In another experiment to find the influence which the fat in the food had upon fat production in the milk, the cow was fed food from which all fat had been extracted, the ration in other respects being good. She gave as much fat in her milk as formerly and showed no loss in weight as the food was sufficient.

Where Did Fat Come From?

This cider mill theory does not work out well when applied to the cow. And the quicker dairymen

drop it the better for them and the cow. Whilst we can speak freely as to how a cow does not produce her milk we are under some difficulty in telling how it is produced. The cow has a patent on the process. And we might become liable by giving the thing away. Another reason is we don't know exactly how it is done. That is probably a sufficient reason in itself. However, sometimes fine results can be obtained by putting into practice what little is known.

Big Milk Yield.

There was produced from a cow a short time ago 126 lbs. milk in 24 hours, 841 lbs. in 7 days, 3,318.9 lbs. in 30 days, 3.41 per cent. fat, 113.263 lbs. of butter fat, or about 475 lbs. of dry matter, all digestible, in 30 days, enough milk to keep 50 people alive for that time. This 3,318.9 lbs. of milk would be equal in nutriment to that contained in 1,320 lbs. of beef steak.

When we come to consider the work of good cows the cider-mill theory gets a "crimp." This cow produced more nutriment in her product than was contained in her food, besides getting her own support. There would be considerable nutriment in the excrement. All cows make the milk by the same process. The difference is in the inherent power of cows. This large yield cannot be accounted for from the cow drawing from her own body flesh, because she was only dry six weeks and thin in flesh, but very vigorous. She had five calves, though but six years and six months old. We have, therefore, in this test about all the conditions necessary to show that a cow can make a large record from her own inherent ability. There is no doubt of the correctness of this work because it was made under official test rules, tested and again re-tested by two separate testers watched by them night and day. All the testing was witnessed by others. For three days the President of the Iowa Agricultural College was an interested visitor and paid his homage at her shrine.

How It Was Done.

It is well here to pause and consider some of the conditions which made this cow able to do this work. She is named Dekol Queen La Polka and, owned by Clayton Sisson of Sherburne, N. J. Mr. Sisson is a young farmer, who has "worked up" from a small beginning, starting with grades, then adding pure-bred Holsteins. That he has given them the best of care and attention the result shows. He deserves the success he has obtained.

It is well to consider local conditions. Sherburne is a small town, nestling in a New Jersey Valley, and Mr. Sisson's farm is about a mile out of town. The country is very hilly there. An Iowan avers that the bees get callouses on their knees trying to extract the honey from the scented flowers that grow on these hills. There were no bees when I was there in March, 1908, waiting for some red tape to be unwound for cattle I had purchased. I cannot vouch for the truth about the bees, but surrounded by such high hills gave me a feeling

like, I think, people must feel like when shut up in jail. (I have never been there as yet). I was wondering how I was to get out of that town. The cars brought me in and I looked for them to get me out. Riding on the caboose with my car of cattle up near the engine I was wishing I had a spy-glass so that I could look into the side door of the car to see if my cattle were all right. The engineer was a mighty clever fellow to find his way out. He took those curves like a politician, willingly as a fellow going to see his best girl.

The Explanation.

The hills may be the back bone of the country, but the valleys are the only and the belly catches the fat and herein we come to an explanation of this great record.

The lowland here is rich, very rich, receiving the waste of the hills for ages, thus being able to furnish luxuriant and rich pasture and to grow plenty of good food for winter, building stock of great variety. This is not the only great cow produced there, there are many others. There are also many poor ones. The difference is whether they are pastured on the bee pasture (hills) or in the valley.

(To be concluded in August.)

THE DAIRY BULL.

In improving dairy herds by selection and testing individual cows, the value of sire in the improvement of the progeny must not be overlooked. One effect of the cow-testing work has been to emphasize the value of the sire. Many dairymen when they buy a bull now-a-days, ask after his ancestry and what has been the record of the bull's dam at the milk pail. This is wise. In building up a first-class dairy herd, both the sire and dam must be of a kind that will strengthen the milking qualities of the offspring. It has been the practice in the past for the dairyman to lay little stress upon the quality of the sire. So long as his best cow got in calf he bothered little about anything else. And this is one of the reasons why there are so many poor cows in the country. Only one side of the ancestry has been looked after, and that given but little attention. If, therefore, the cow-testing associations are showing the importance of selection



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BLOODED STOCK for July.

of the sire as well as the dam, another strong reason is afforded for their existence. The dairyman cannot back up the work they are doing too strongly. It means dollars and cents to him to have his cows tested and a record kept of what each one will produce. And to get the full benefit of such work he must keep up the testing and recording process for a period of years.

PASTEURIZING SHOULD NOT BE NECESSARY IN BUTTER MAKING.

The creamery industry is, as yet, still in its infancy, being perhaps until recent years the most progressive industry of the age. Nevertheless this industry is one of the greatest and most important, not only of this country but of the whole civilized world. It is remarkable that while other industries have made such rapid progress the creamery industry has been almost at a standstill. But of late years even this industry has been forging ahead, and among the many improvements the pasteurizer stands out prominently. The pasteurizer has certainly done an immense amount of good towards producing a higher standard of quality throughout the creameries, but it will not be until the pasteurizers are out of date and no longer used that we can begin to think we are nearing perfection.

Reasons For Pasteurizing.

The chief object of the pasteurizer is to destroy the obnoxious bacteria and thereby do away with the bad odor and flavors which sometimes make the butter of such second rate quality. What is the cause of these bad flavors? Simply this—that the cream is neglected on the farm and that the necessary care of it is neglected. The farmer considers the produce of his cows as an insignificant side line to his business, and so long as he gets his money he is satisfied.

The milk and cream should be most scrupulously attended to, and kept at a low temperature until delivered to the factory.

The separator is a most dangerous source of contamination unless it is thoroughly cleaned after being used. The farmer will say that for all this extra trouble he will get no more money—but here he makes a mistake, because, if the cream arrives at the factory in good condition, pasteurization will be unnecessary, and this, as all creamery men know, will be a great saving.

Loss in Buttermilk.

As a result of several experiments carried on at a prominent Ontario creamery, it was shown that there is a loss of from .25 to .35 per cent. of butter-fat in every 900 lbs. of butter milk, whereas in unpasteurized cream there was only a loss of .05 per cent. Figuring on this loss and the fuel and extra labor in pasteurizing, it will be seen that in an output of about 25,000

pounds of butter per month, there is a loss of considerably over \$50.00. This sum must eventually come off the farmers' cheques at the end of the month.

Sour Cream.

Again, many farmers think that by deliberately souring their cream they will obtain higher tests. This is one of the greatest possible mistakes, as sour cream, especially in the pipette system of measuring, will give considerably lower tests than sweet cream; and also necessitates pasteurizing it.

From this all intelligent farmers will see that it is in their interests to give the proper care to their cream; and it is in the interests of the creameries to get after the farmers to send in cream in good condition, and so hasten the departure of the pasteurizer, which is a continual source of expense, labor and loss of time. It is true that in very rare cases an extra price is paid for pasteurized cream butter, but this is the exception, and pasteurizers will only pay if at least a cent or 1½ cts. can be got above the ordinary price.

TYPES OF BEEF AND DAIRY CATTLE.

Cannot Produce Good Beef From Dairy Types.

Prof. W. B. Richards, of North Dakota Agricultural College, says many farmers continue to raise cattle for market for beef purposes from stock that does not possess any blood of the beef breed, and consequently lack what is known as the beef type. It is impossible to produce beef economically from cattle of the dairy type, or even from cattle that possess any considerable amount of blood. To produce an animal of beef type it is necessary to use the beef breeds of cattle, such as the Short-horns, Herefords, Aberdeen-Angus, and Gallo-ways. Cattle of this breeding put on flesh very much more rapidly and of a better quality.

A beef animal could be described in a general way as a low down, compact, blocky animal.

VALUE OF RYE MEAL.

The Pennsylvania Experiment Station has discovered that rye meal as a part of a properly balanced ration for dairy cows is sufficient in milk and butter production to an equal weight of corn meal.

Cultivation Conserves Moisture.

Many farmers cultivate corn with no farther object than killing weeds. If no weeds appear there is just as much need of stirring the soil as though the field were full of them. It conserves moisture, retains heat and aerates the soil. In early spring, when the soil is firm, and moisture abundant, cultivation warms the soil by decreasing evaporation. Evaporation takes heat from the soil. A mulch of mellow soil retards radiation of heat. Loosening the surface soil makes a mulch, to retain the moisture, and supplies a most favorable surface to catch and hold the rains.

Holds World's Record
The New 1910 Model
U. S. SEPARATOR
Is emphatically the BEST
and the only one for YOU to buy.

1. It skims the cleanest.
2. It's built the strongest.
3. It's the easiest cleaned.
4. It's the most convenient.
5. It requires least power.

The U. S. defeated all other separators at Reattle on these five essential points and

Won Grand Prize
Vermont Farm Machine Co.
Bellows Falls, Vt., U. S. A.

PROFITS IN COW-KEEPING.

Which of These Two Herds is Yours Like?

Successful cow keeping depends somewhat upon the cow, though her care and feed count for much. If a farmer has not the right kind of cow he cannot expect to make a success of dairying. The thing to do is to test the cows and find out which are good and which are not.

A great deal of data on cow records has been obtained through the cow-testing work which has been carried on throughout the country for several years back. The following table shows the profit and loss on two herds. The average profit from herd B. was over \$35 per cow greater than from herd A.

Herd "A."		Gross Profit.	Loss
Cow No.			
1	.....	\$17 30	.....
2	.....	2 58	.....
3	.....	13 20	.....
4	.....	.....	\$4 60
5	.....	4 25	.....
6	.....	12 40	.....
7	.....	.....	55
8	.....	.....	18 15
9	.....	.....	1 05
10	.....	17 10	.....
11	.....	.....	8 00
12	.....	7 95	.....
		\$74 78	\$32 35
Less the loss on 5 cows out of 12.....		32 35	
Net profit		42 43	
Average profit per cow, \$3.54.			

Herd "B."		Profit.	Loss.
Cow No.			
1	.....	\$53 70	.....
2	.....	45 00	.....
3	.....	41 05	.....
4	.....	38 93	.....
5	.....	37 49	.....
6	.....	37 41	.....
7	.....	37 42	.....
8	.....	33 51	.....
9	.....	28 12	.....

Total profit

Average profit per cow, \$39.28.
These figures include credit to each cow for every particle of her product, and show emphatically the vital importance of testing the milk of every animal in the herd, keeping the records and tabulating them for reference. Get rid of the "loss" spots and your farming operations will show the results.

Keep books and you can readily stop the leaks.

HOGS

FOOD UNITS IN SWINE FEEDING.

The Danish System Explained—Different Rations For Pigs Of Different Ages.

The high quality of Danish bacon is attributed to two principal causes:—First, the very general use of milk in feeding, the second, the rapid rate at which pigs in Denmark are made to grow. The latter cause in large measure depends upon the first as perhaps no other food is better for the growth of a pig than milk suitably blended with other foods. The Dane has found by experiments and experience that much depends upon proper blending of foods if best results are to be attained. It has been ascertained in an exact degree by repeated experiments, that the diet of a pig should vary according to its age. This is understood and accepted by most feeders in a general sort of way, but the Danes have learned how to vary the diet of a pig throughout the period of its life, so that neither time nor food is lost at any stage of its growth. To this end pigs are grouped according to age in four classes, and the ration is prepared for each group by calculating in food units. Class one includes pigs up to 40 lbs.; class two, 40 to 60 lbs.; class three, 60 to 120 lbs., and class four, 120 lbs. to finished weight. Young pigs are given an easily digested diet made up of finely ground chop soaked in milk without either roots or green feed. For pigs of this weight the slop consists of 180 parts by weight of milk to 70 parts by weight of chop.

Basis of Food Units.

In food units this diet is 30 per cent. milk and 70 per cent. grain. These percentages are arrived at by the relative food values of the different products. One pound of grain is taken as a basis of a food unit, and as one pound of grain is equal to six pounds of skim milk, it follows that pigs up to forty pounds weight get a mixture consisting of 180 parts by weight of milk and 70 parts by weight of ground grain. This is given in a separate trough as early as the little fellows will eat, so that by the time they are weaned at about eight weeks old they are eating so well and have become accustomed to the food that they continue to grow without a halt.

When a weight of forty lbs. is reached, the pig is a lusty chon, able to take care of a stronger diet which includes along with the milk and grain a small percentage of roots or without a halt. When a weight of 40 lbs. is reached, the pig is a lusty chon, able to take care of a stronger diet, which includes along with the milk or grain a small percentage of roots or other green food. The diet at from 40 to 60 lbs. consists of 25 per cent. of milk, 70 per cent. of grain and 5 per cent. of green food. That is to say, 5 per cent. of the milk is displaced by an equal per cent. of a su-

culent vegetable food such as mangels, boiled potatoes, green vetches, clover or alfalfa. The mixture consists of 70 parts by weight of grain, 25 parts by weight of milk, and 40 parts by weight of mangels. The quantity of mangels is arrived at on a basis that 8 lbs. of mangels have a feeding value of one food unit which is equal to one pound of grain. If boiled potatoes are used instead of mangels, only 20 parts by weight are used, because four pounds of potatoes, boiled, constitute one food unit or equal to one pound of grain. On the mixture thus compounded, consisting of milk, chop and green food, growing pigs make rapid strides and maintain a vigorous, healthy state.

Develop Digestive System.

When sixty pounds are reached, the pig is able to make good use of a little cheaper and more bulky diet, which is so blended as to develop the capacity and vigor of the digestive system. In other words, the machine for turning crops and dairy by-products into meat is by careful feeding brought up to a high standard of efficiency. The diet until the pig doubles its weight of 60 lbs. consists of 15 per cent. roots, 10 per cent. green food and 75 per cent. of grain. This, in a mixture of 245 lbs. would consist of 75 lbs. of grain, 90 lbs. of milk and 80 lbs. of roots or alfalfa, etc. It will be observed that the percentage of grain has been fairly constant, while the amount of milk has decreased and green food correspondingly increased. The pig has now reached 120 lbs. and ready to put onto a finishing ration. He is big for his age, full of vigor, and therefore ready to care for a fairly strong diet.

Finishing Ration.

From this time on the object is to reach a finished weight in the shortest possible time. Feeding must not, however, be overdone, as the appetite must be kept keen and the digestive organs in strong condition. For this reason both milk and roots are continued but in a much reduced quantity. It is flesh rather than growth that is wanted. The diet therefore now consists of a mixture made up of three-quarters of a food unit (144 lbs.) of milk, one quarter of one food unit (2 lbs.) of roots for each pig per day mixed with as much grain chop as is eaten with a relish. It is made with water into a rather thick slop, soaked until soft before feeding. By this system of blending foods and feeding Danish farmers are able to turn off a large proportion of their pigs finished at from five to six months old. During this time it is true a large amount of grain has been consumed, but it is also true that every pound has been turned to good account in producing pork.

In the matter of securing economical gains in pork production, the average Danish farmer has outstripped his American rival largely by the adoption of a system of blending foods for pigs of different ages ac-

cording to their system of calculating food units.

SHADE FOR HOGS.

During the heated term of the year hogs should be provided with good shade, it is a necessity and helpful in maintaining growth. They ought to have a good pasture with plenty of shade provided for them when they are not eating.

The hot sun renders them uncomfortable; it requires a portion of the maintenance feed to offset the disadvantages from the hot sun.

The comfort of the hog should be looked after as one of the essentials as well as feeding and watering. If you have no small trees, a temporary arrangement can be made alongside of the fence, using hay, grass or weeds to cover it to prevent the heat of the sun from striking the hogs. An inexpensive shade is made by four small trees or poles with a crotch with a few rails across. For a small sum you can furnish a comfortable shade for them. This, of course, is where you are not provided with the shade of trees; it is a good plan to have a shade tree or two in every field.

The hog loves a cool, damp shade, where he can lie and snooze during the heat of the day. Experience of prominent breeders show that a mud wallow is by no means necessary. If the hog cannot have a clean bath, no bath is preferable, but he wants to lay on cool, moist ground. If left in the pasture with no shade he will suffer, and it is costing a portion of the feed in compelling him to be without shade.

ALFALFA TAKES THE PLACE OF CORN.

Formerly corn was cheap and hay was cheap, so that western feeders had no particular problem to profitably feed live stock for the market. But conditions have changed. The surplus corn crop of Kansas and Nebraska is yearly becoming less and less. Corn prices have risen until corn can no longer be so lavishly used, even in Kansas and Nebraska, where it always holds the cheapest price. Experiments made at the Nebraska station the past year showed that the largest gains were made with corn and alfalfa, using a full corn ration. But the cheapest gains were made with the least corn ration in the test with alfalfa. Prof. Smith, in commenting on this experiment, remarked that corn belt feeders would be obliged to use less corn or go out of the feeding business. When corn becomes too costly to feed in Nebraska and Kansas, we cannot hope to pay freight on it and make a profit. Our hay and alfalfa are worth as much as the prices which prevail further east. If our feeding goes forward, we must grow our own feeds.

Adapted to Alfalfa Conditions.

Of these, barley is one of the most promising. Barley will grow under a greater variety of soil, climate, and altitude than almost any other grain crop, northwest climate is well adapt-

ed for its growth. As a feed barley is practically equal to corn. For putting on a high market finish corn is about 8 per cent. more valuable than barley, pound for pound. For young stock and for the first weeks of fattening, barley is superior to corn. It will produce a meat of better flavor and superior quality.

The amount of meat it is capable of producing, per acre, is fully as great as the best corn in the corn belt. Eight hundred pounds of pork per acre have been produced on barley in Colorado, a meat yield rivaling the very best of the corn belt. With a feed like barley, which we can grow at home cheaper than we can import corn, why import corn to make a poorer quality of meat?

The highest priced pork on the market at present is barley-fed pork from Denmark. It commands a higher price in the English markets because of superior quality. It does this in spite of the fact that it competes with the very best American corn-fed product.

HAS BEEN MONEY IN HOGS FOR THIRTY YEARS.

When hogs for some time bring more than ordinarily high prices the tendency and temptation are for rushing pell-mell into swine raising, and likewise to be forgetful of quality in obtaining quantity. It has always been so, and probably always will be.

But the author's observation is that it has taken persistent and skillful mismanagement to lose money in hog raising with prices as they have ranged for 30 years past, barring, of course, some such epidemic as the so-called cholera. There is no branch of farming or stock husbandry which, conducted with a reasonable amount of fair horse sense and stayed with systematically, one year with another, will do better by its proprietor, and more successfully keep the wolf and sheriff from his door than the rearing of well-bred swine. This, if he is satisfied with reasonable gains, and such substantial, steady growth as pertains to the better class of farming, conducted with skill and intelligence.

If the experience of the best men is worth anything, if their observations and bookkeeping have any value as standpoints from which to judge, there is surely a profit in wisely bred, wisely fed hogs, and there always has been, at any price for which they have been sold two years in succession within the observation of men now in active life.—Coburn's.

In considering the efficiency of brood sows, Henry Wallace gives the following advice: Go over those that have had pigs the present year and ask them the following questions: How many pigs have you had this year? Were they even in size and form? Were they all good ones or did you have two or three choice pigs and were the rest quite inferior? How did you take care of these pigs? Are you a good suckler? Are you good natured? Are you a good mother, or are you one of the nervous, fidgety kind, always worrying and fretting for fear somebody will hurt you and your precious piglets? If the brood sow on being interrogated, cannot give satisfactory answers to these questions it is not worth while to

scold her or give her a moral lecture. Just turn her into the fattening pen, for there is where she belongs.—Swine in America.

SWEET CORN.

One of the nicest and cheapest feeds that will make growth rapidly is sweet corn fed in the roasting ear condition. The pigs will curl their tails and lay on pounds rapidly when they have a nice lot of this thrown to them. Always be careful in changing feeds to do it gradually so as not to throw them off their feed or derange their internal arrangements.

Feed a very small portion the first day and keep increasing day by day until they have all they eat up clean. You will find it a cheap feed for growth, but give them some grain feed also.

GROOMING THE PIGS.

The pig raiser who meets with success looks after the conditions of his pigs continuously. He wants the skin in good shape and there should be no lice or mange, both of which are stealers of your feed and stunters of your pigs. In this day and age with their dips you can easily become rid of them. Look after it. Also take care of them that they are clean—of worms so that they will be right outside and inside, all they have to do then is grow, if you give them the right feed.

STOP THE THUMPS.

A subscriber writes us and asks how he shall prevent the thumps.

We have time and again published directions for the prevention of thumps. Prevention is always better than cures; by preventing no loss has happened to pigs; in curing there will necessarily be a stunting to a certain extent. There is seldom any trouble from thumps, when sows farrow their litters in the summer time where they are out of doors and follow them around. This exercise prevents thumps. The thumps is caused by the little fellows getting too fat from their milk, lying in the close pens where they have nothing to do but eat and sleep and accumulate fat; this causes the trouble about the heart which in its effort to perform its functions makes the thumps.

Therefore when pigs are in a close pen they should be exercised, made to scamper around as a prevention, and when one has really become afflicted with the thumps or shows the first signs, it is a good thing to take it away from the sow and put in a pen by itself until it becomes good and hungry and runs around squealing, several times a day for a day or so. This will use up some of the surplus fat and get it into condition where the thumps will be unknown. Cutting off the supply of feed and increase the exercise works the beneficial health racket with the overfat little pig.

HOG HOUSE CLEANING.

Every hog raiser should, like the good housewife, have hog house cleaning thoroughly once a year at least, the yards and pens should be cleaned out and scraped up, white-washed with fresh lime and some of it sprinkled over the floors and in the

HOGS.

FOR SALE—Duroc and Poland China Registered stock bred sows. Service Boars \$12 to \$20, 40-lb. Pigs \$5. Also some choice Rhode Island Red chickens. WM. HARSHMAN, Thurmont, Md.

BARGAINS IN POLAND - CHINAS, BERKSHIRES and CHESTER WHITES
I now have a large stock of probably the best I ever owned. Cannot tell you all here, but I have Boars and sows, all breeds, 2 to 6 months old mated not skin; sows bred and born ready for service. Guernsey Calves and Registered Scotch Collie Puppies. Write for prices and free circular. This stock must go and will be sold. M. R. TURKEY, Barred and White P. Rocks, B. Leghorns and Beagle Dogs. P. F. HAMILTON, Cochransville, Pa.

FOR SALE—Some fine Yorkshire Pigs—no better stock in U. S. Just imported—new blood. A. A. BRADLEY, Frewsburg, N. Y.

MILCH GOATS.

MILCH GOATS—Information regarding this most profitable milk producing animal. Write G. H. Wickersham, 1242 St. Francis avenue, Wichita, Kansas.

POULTRY.

FOR SALE—Good honest stock eggs of Single Comb Brown Leghorns; finest strains. Cups and Blue Ribbon winners at Cumberland, Frostburg and Somerset. 600 fine large farm-raised birds for sale at reasonable prices. Twenty-five extra choice Light Brahma cockerels for sale. Write me. HERMAN SHOCKEY, Sand Patch, Pa.

MISCELLANEOUS.

HORSES going blind Barry Co., Iowa City, Ia., can cure.

TROTTER MARE for sale—a handsome, black, trotting mare, and beautiful stud colt, very fast. Second cousin to Dan Patch. Price \$200. P. J. WYAND, Cumberland, Md.

FOR SALE—Two litters Scotch Collie puppies, sired by the noted "Flying Comet" and "Laddie Boy," out of bitches bred in the purple; perfectly marked golden sable; strong, healthy, farm-raised stock. Prices from \$10 up. FRANK H. TAYLOR, Reedsville, Pa.

SEND 10c for a sample copy of the largest, newest, race-horse paper published. P. J. WYAND, Cumberland, Md.

FOR SALE—Pure-bred Registered Holstein Bull. Ready for service this spring. Born April 6, 1909. Two-thirds white. Finely marked. Fine individual. Write for pedigree and price. MADISON COOPER, 101 Court, Watertown, N. Y.

OUR FEATHERED FRIENDS

Conducted by George W. Miller.

A FEW EGG OBSERVATIONS.

The waste from the spoiling of eggs runs into the millions of dollars every year in the United States alone. In other nations the loss is even greater owing to the ignorance of cold storage methods. The use of water glass by every farmer that produces eggs for market would result in much saving of eggs. They should be treated as soon as laid.

The men that own cold storage warehouses and those that rent space of them make great fortunes every year by purchasing millions of dollar's worth of eggs in the summer and selling them in the winter. The time will come when every farmer will have his cold storage facilities and will save that profit to himself.

It has been found by investigation that some eggs are infected with bacteria when laid. Ovaries of hens were opened and a small proportion found to contain bacteria of different species. The infection began as early as the secretion of the white of the egg and before the shell was secreted. Therefore the shell did not keep out the bacteria. This occurred only in diseased ovaries. Most ovaries of fowls are germless.

It is a mistake to suppose that eggs cannot be entered by bacteria. The bacteria are smaller than the pores in the shells. The pores are minute holes, so small that liquids will not pass through them, but germs will. The fowls in producing the eggs secrete a sort of mucilage that covers the eggs, fills the pores and keeps out the germs.

It is desirable to let an egg dry with the mucilaginous coat on it, as in that case the germs will not get in for a long time. Dirty eggs have to be washed. The washing takes off the mucilaginous covering. This opens the pores for the entrance of germs. Therefore a washed egg spoils more quickly than an egg that has not been washed. Moral: Keep the nests and eggs clean or use the dirty eggs in the family.

Cold is the greatest factor in the keeping of eggs. An egg kept just above the freezing point will remain good for a long time. The bacteria in eggs do not multiply. With the increase in temperature comes increased multiplying of bacteria. till about 100 degrees is reached. At that point it does not take long for an egg to spoil.

Bacteria can be kept away from eggs to some extent by frequently renewing the nest material. Many times has the nest material of old nests been submitted to bacteriologists for examination. Frequently they have been found swarming with bacteria, some of which find their way through the pores of the eggs. It is not a difficult matter to keep this nest material always fresh and clean. A broken egg left in the nest is a disease breeder.

HOW TO KEEP EGGS.

Shippers of eggs for packing purposes usually order eggs for this purpose not to be sent after June 1st; the April and May eggs keeping best, they claim. But this I know: May and April eggs will keep no better than June, July and August eggs if you will discard every male bird from your laying hens. An infertile egg will keep indefinitely in a moderately cool place. I have known them to keep well for weeks on a pantry shelf near a window through which the cool air blew constantly, and if they will keep so well here, how much better will they keep and longer simply placed on a shelf in a cool cellar? All of the eggs used for shipping in the great egg town of Petaluma, California, are laid by hens penned away from the male birds. These eggs go long distances across the ocean every day, and into hot lands.

Next best is the preservation in the "water glass" solution. This is a preparation of so much pure sand, so much soda, which is in soluble state, and is a pale yellow, odorless, syrupy substance. If the solution is a first class one, one part of it to fifteen of boiled and cooled water is sufficient if eggs are not to be kept for months. But if an indefinite time, then one part "water glass" and ten parts sterilized water. Call for sodium silicate. I have found druggists who did not know what you meant by water glass.

In packing in water glass you can make just enough of the solution each day to cover the fresh eggs put down, or you can fill a jar half full of the solution and put in as you gather in the eggs, making enough to fill the jar when the eggs come near the

surface of the solution already made. Cover and keep in a cool place. Don't try to use same solution twice without adding more water glass. The eggs use up the soda and sand in their pores. The above is a pure preservative. Besides these is the lime water mixture, covering with paraffin, bedding in salt, oats and bran. I like neither of the last in hot weather. Coating with lard or vaseline will help keep them. The paraffin is melted and with a silver spoon they are quickly dipped into it. It takes some ingenuity to do this properly.

Lime water is made by slacking three pounds of lime in a small amount of water. Add this milky stuff to three gallons of water, stir every little while for a day, then let settle and pour off the clear water which use for packing eggs in. Some persons add a pint of salt to this. Others think it is unnecessary. If an egg floats discard it as it is likely stale. Put in no dirty eggs. Don't wash eggs before placing in either lime or the water glass.

Water glass should not cost over 60 cents a gallon, but some druggists fairly scorch you on the price. You can see for yourself the cheap ingredients used in it. A druggist once wrote me that two kinds were made, one in which the soda was more than doubled in proportion, and this was the kind wanted in the preservation of eggs, and that it was a cheap substance at the best.

The French have a new method. We are not on to it yet. It is cheaper than all they say. The eggs are put in a machine, a certain tablet is put in with them, and they are slowly turned as the tablet dissolves. This completely sterilizes them against decay. Try my first plan and a cellar with rack-like shelves.

THESE SICKLY-LOOKING CHICKS NOT FED OUR WAY

They wouldn't be wilted, forlorn and droopy as are these poor little fellows. What's the matter? Likely some one has been feeding a lot of table scraps, or sour bread, or some other indigestible mixture that is fermenting in their stomachs. Tomorrow the owner will find eight or ten dead, and wonder: "What killed my chicks?" Chicks are babies and must have baby food. That's why Puritan Chick Food is so successful in rearing chicks, keeping them well and holding down the death-rate. It just "fits" the interior mechanism of the digestive organs of a chick.

Puritan Chick Food

(The Safe Kind)

has a delightful taste and odor to a little chick, because it is compounded of those very pure, wholesome and sweet elements that naturally attract it. Your little "puff-balls" will make things fly scratching; they are always happy and busy when fed on it. Some of the largest poultry plants use Puritan Chick Food. It pays them. It will pay you, no matter how small your flock. It is foresight, wisdom, economy and profit for you always to keep it on hand. It's true life insurance for your chicks, all other things being equal. We guarantee it so, and refund money if you're not satisfied. No fussing about it, either—your word is final. Puritan Chick Food is put up in 1-lb. boxes for 25¢; 5-lb. bags 1.00; 10-lb. bags 1.75; 100-lb. bags 6.25. Ask your dealer for it. If he hasn't it we'll supply you. Booklet free. Write now for it.

Sound Brook New Jersey



HOW TO DEAL WITH HEAD AND BODY LICE. GOOD TIME TO GET FRESH STOCK.

What are you doing among the poultry this month? The hatching is all over, the chicks fairly well started, the weather hot and dry, and the inclination is to get a little careless. Be careful! Carelessness at this time of the year means trouble later on. You have some late hen-hatched chicks; look them over; the probability is that they need dusting. If some of them go around with their wings hanging down and looking sorry, catch one and examine the head and see if there are not some head lice on it. The best cure for head lice is a little grease of some sort rubbed on the head; carbolyzed vaseline, lard and sulphur, or in fact grease of any description will do. Don't plaster it on; just take a little on the end of the finger and apply, gently rubbing it well into the feathers. These lice bury their heads right into the skin of the chicken, and become quite firmly attached. As they breathe through little holes in the sides of their bodies, the idea is to get the grease into these air passages, so that they smother to death.

For body lice I have found nothing better than pyrethrum powder. I have found the following a good way of applying it. Take a pound of the powder and mix it with about twice its bulk of fine road dust or sifted coal ashes. Then get a barrel and hold the bird's head down in it, and sprinkle it freely with the mixture, working it thoroughly into the feathers. All the surplus powder falls into the barrel, and can be used over and over again, so that there is very little waste, and a large number of birds can be gone over in a short time.

Water And Feed.

Watch the water pans these hot days; set them in a shady place and see that the water is replenished regularly.

Have you tried the hopper method of feeding? If not, try it, you have no idea how much unnecessary work it saves, and the chicks will do just as well.

This is the time to get busy with the whitewash brush. There is nothing that gives a hen house a brighter, cleaner look than a good coat of lime wash. And it is fatal to all the red mites it comes in contact with, so don't be afraid to use it freely inside the nests as well as outside.

If you are not satisfied with your own flock, this is a good time to procure fresh stock. Most breeders, as soon as the breeding season is over, sell off a large number of their breeders, so as to make room for the young stock, and birds can usually be bought a lot cheaper now than later on. If you have not already culled out your old hens, do so at once, as you can get better prices for them now than you will later on when the chickens become more plentiful. Don't forget the lice.

Commercial Poultry of Marseilles, Illinois, is responsible for the following "Important if true Story."

"Californians are up and coming when it comes to scientific experiments. It has fallen to the lot of a Stockton poultry breeder to adopt a unique plan of influencing the sex of hatched chicks, and though the result has not yet been determined, the experiment is being watched with great interest. In an effort to produce more pullets than cockerels, poultry fanciers have been experimenting for years. The main theory is that chickens will have a tendency to the sex and markings of the more vital parent.

"The Stockton breeder has taken electricity as the greatest vitalizing agent. The roosts are of steel to which electric batteries are connected. The male bird is removed from the roosts each night and the females receive a constant current of electricity during the night.

"It is thought by the local breeder that great equality will be imparted by the electricity to the hens and that the chicks hatched from their eggs will be their likeness."

A GOOSE FARM.

There are almost all sorts of farms nowadays. Large poultry farms are common; duck farms by no means infrequent; and there is talk of frog farms, skunk farms, and others equally ridiculous. But we do not hear of goose farms—farms devoted exclusively to, or where the main business is, raising geese for market.

We agree with an exchange that probably no department of agricultural industry requires less capital, and offers greater opportunities for profits. Geese require very little in the way of houses; low, cheap sheds usually meeting all necessities. During spring, summer and fall the geese obtain most of their feed from the ground, if given suitable pasture. About the only feeding time, therefore, is during the winter months, and even then costly feeds need not be given.

The cost of keeping the breeding stock cannot be great, and, as the young stock is marketed in the fall, most of its living is obtained in the pasture, requiring only special feed to hasten its growth and development, and to fatten it for market.

In view of these facts one would expect the establishment of goose farms, where the principal endeavor would be devoted to these fowls, and where the principal dependence for income would be centered in them. We certainly believe there are inviting possibilities in such an enterprise. But of course there must be adaptability to make it a success. The farmer must be adapted to it, and the locality must be suitable. The pasture must be large enough and rich to grow tender grasses; it must have water, running, if possible, all surrounded by a good and tight fence.

A plot of thrifty, well-established alfalfa suitably fenced and used for pasturing swine of whatever age can scarcely fall short of being among the most profitable parts of any farm upon which swine husbandry is given attention.—From Coburn's "The Book of Alfalfa."

Belle Brand Crushed Oyster Shells

Make Poultry PAY!

Tests show where these shells have been used—duration of test 22 days—number of eggs, 33; weight of eggs, 1459.4 grammes.

Where Sharp Grits were fed—test 22 days—number of eggs, 6; weight of eggs, 257.6 grammes. This is convincing argument why every poultry house or yard should have them. They'll make hens lay an egg a day, with firm, hard shell—less liable to break in shipment.

Belle Brand Crushed Oyster Shells supply Carbonate of Lime in natural form and acts as a grit, making them superior to any other poultry food on the market. Write for Free Catalogue to LOUIS GREBB, BALTIMORE, MD.

THE HEN MUST BE RECKONED WITH.

Samuel Phillips, writing to one of our exchanges, has this to say about poultry on the farm:

I know from what I have seen on some farms that the hens have made a great deal more money—investment, work and cost considered—than any other one branch of farming. Most farmers consider the care of poultry "woman's work," and some of them are actually ashamed to be seen helping their wives look after the fowls. What a mistake. It is not as much a woman's work as a man's, because it often involves exposure during storms and cold weather and the man who will refuse to save his wife from any bit of hard work possible is a pretty poor specimen of a farmer. If these men would study the science of poultry raising and give it as much attention as any other branch of farming, they would make more money and make it easier. The American hen has made her place in agriculture by producing millions of dollars every year and she has earned the respect of every right-thinking farmer in the land.

\$350 a Month--500 Hens



ALWAYS FULL BRIGGS SYSTEM DOES IT

Edgar Briggs did it! BRIGGS, the Thomas A. Edison of the Poultry World—the man who wrote "Profits in Poultry Keeping Solved"—fourth edition just now ready. No branch of mercantile business or farming pays the profit that poultry guarantees under the Briggs system.

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FRUITS AND VEGETABLES

BARNYARD WORRIES.

I chanced into a barnyard large and clean,
And said, "Here in this sunny, sheltered spot
Contentment reigns." But each inhabitant
I found was discontented with his lot.

"You geese," I said, "are sad because we give
Your name to fools." They answered, "Not at all;
We harbour thoughts of suicide because
We're not the geese that saved the Capitol."

"We criticised your milk, sad cow," I said
She cried, "That's not what puts life out of tune;
I couldn't clear a three-bar fence, and yet
They say that once a cow jumped o'er the moon."

"Fat pig, your reputation bothers you,"

"Not that you'll notice it," was his reply.
"Soon airships will be thick as weeds, but you
Know what the chances are that pigs will fly."

"Poor horse," I said, "the auto takes your place,
And that is why you sorrow so, of course?"
He cried, "Oh, where was I when some one called,
'A horse, a horse, my kingdom for a horse?'"

"No setting hens grow fat, you know," I said.
To one thin hen that wandered off alone,
"I've not been setting," answered she.
"I'm sad
Because I cannot lay a corner stone."

W. A. Clarke.

SUMMER-FALLOW AND WEEDS.

Law or no law; enforcement or no enforcement, to effectually overcome the weed problem the farmer must act for himself. Proper law enforcement will compel the neglectful man to act and will do good to this extent. But if the farmer himself is not seized with the importance of doing something of his own accord on the weed question, final extermination will not be accomplished. Shorter crop rotations and better cultivation will help. Years ago the summer-fallow was a favorite plan in Ontario for cleaning a dirty field of weeds. Of late years the summer-fallow has become largely a back number and the hoed crop has replaced it as a means of keeping weeds in check. But does it do so? On a reasonably clean field well prepared by fall and spring culti-

vation, and kept free of weeds when the corn or root crop is growing, most certainly weeds will not make much headway. But where one sees a field of this character, there are, at least, as many more, that are not looked after, and after the crop is off weeds are just as plentiful as before it was planted. The summer-fallow is therefore looked to more as a means of cleaning a dirty field of weeds than it once was. When we say summer-fallow, we mean the right kind of a summer-fallow, not one that is left idle during the summer without any care or attention, excepting to plow it once or twice. On a dirty farm, if the fields are taken in order, and each one properly summer-fallowed, some headway can be made against weeds. The one objection to the summer-fallow is that there is no return in crop for a year. Even so, there may be no crop anyhow if the weeds are allowed full swing. Better a clean field and no crop than a dirty field and a crop hardly worth the threshing.

KEEP AFTER THE WEEDS.

There should be no let up to the weed question when harvest is over. A good many weeds can be put out of business by careful cultivation after the crop is off. Weeds that have been allowed to go to seed, will soon begin to show themselves in the stubble, especially if a rain comes along. The thing to do then is to allow the seeds to get a good start, then gang-plow and harrow the land. This will expose the new plants and their roots to the heat of the sun, effectually putting them out of the running. Perennials, too, can be checked considerably by surface cultivation after harvest. By exposing the roots to the dry, hot sun in August or September their vitality is weakened and they will do less harm the following year. The war against weeds must be a constant one if progress is to be made in keeping them under. One of the reasons why they have made so much headway in many places is because they have been allowed to work their own sweet will after the harvest is off. True, all the harm they can do, has been done, with the season's crop. But there are more crops to come and the farmer who would successfully solve the weed

problem must look ahead. So long as there is growth in the ground weeds will grow, and there can be no let up in efforts to combat them till the frosts come.

CONCRETE CORNCRIBS AND GRANARY FLOORS.

How to Free the Farm of the Destructive Rat.

Rats destroy grain, carry "catching" diseases from house to house, and from their love of matches cause destructive fires. This useless waste has become such a national loss that the Department of Agriculture at Washington, D. C., has issued a free bulletin on "How to Destroy the Rat." To get rid of the rat remove his nesting place. With this object in view the Department recommends concrete floors especially for barns, poultry houses, corn cribs and granaries. The experience of many farmers is, that grain mature enough to be placed in storage will not spoil on concrete floors. Says the Government bulletin "Corn will not mold in contact with them, provided there is good ventilation and the roof is tight."

For a corn crib choose a well drained site. Excavate a trench for an 8-inch concrete foundation well around the outside of the building and to the depth of 2 feet. With box forms of 1-inch siding on 2 by 4-inch studding, carry this 8-inch wall to a height of 12 to 18 inches above ground level, depending upon the height of the drag-belt conveyors used by local corn shellers. (All concrete floors should rest on a fill bringing them entirely above the surrounding ground.) See that the forms line up and test them for levelness by means of a carpenter's level.

On a tight mixing board mix the concrete 1 part Portland cement to 2½ parts sand to 5 parts crushed rock (or 1 part Portland cement to 5 parts bank-run gravel), all measurements by volume, based on 1 bag of loose cement being equal to 1 cubic foot. Fill the forms with concrete thoroughly wet and do not remove them for 4 days.

There are several ways of attaching



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the studding to the concrete floor. One of the simplest and easiest is the nailing sill or plate, generally a 2 by 6-inch piece, bolted to the concrete foundation wall. For such a sill, while the concrete is still soft, set ¾-inch bolts 8 to 10 inches long, head down, 3 inches in from the outer edge of the foundation wall and projecting 2½ inches above the concrete. These bolts should be spaced not more than 3 feet apart.

Some farmers prefer to counter-sink the nailing sill so that its top will be flush with the surface of the floor. So placed, the sill is liable to rot more quickly. Others firmly imbed strap loops, made of old wagon tires, with the loop ends encircling the studding. Do not sink the wooden uprights into the concrete. Timber rots out in a few years; concrete lasts forever. Sometimes studs so placed swell and crack the concrete.

After the forms are removed, place a well rammed fill between the foundation walls and within 4 inches of their tops. Coarse gravel and crushed rock are the best materials for this purpose. If some clay must be used, tamp it in the bottom, but let the floor rest on at least 6 inches of gravel or crushed rock. With the fill thoroughly settled, commence placing the 4-inch floor. This concrete should be only wet enough that it will flush a little liquid cement when tamped into place. Begin at one end and lay the floor crosswise in 3-foot sections. Bring the surface of the floor flush with the top of the foundation walls and, with a straight edge round it up slightly (say 1 inch) in the center. Dress it down with a wooden float and, when the cement begins to stiffen, smooth the surface with a steel trowel. Continue placing the floor in sections until the work is completed. Build the floor early enough in the season that it may be thoroughly dried out before grain is stored on it.

Experienced concrete workers often use only an outside form, one wall, for the foundation walls. They place the concrete for the foundation wall against this outside form and at the same time tamp the gravel fill back of the concrete. In this case the foundation, as well as the floor, is built in sections and both at one time. The saving in lumber so effected really amounts to nothing, as all the boards can be used later in the crib.

Reinforced concrete floors, not supported by earth or gravel fill but by the foundation walls alone, can and are being successfully built. Since the strength of each floor, on account of the variation in size and loading is a different problem, it is advisable to refer every piece of such work to a man who is thoroughly familiar with the principles of reinforcing. The main point is that concrete floors last forever. They afford no nesting place for rats. And with \$1.00 wheat, 75 cent corn, and 50 cent oats, the saving thus effected adds considerable to the profits of each year.

TWO VIEWS OF MANURE.

Preserving Manure Out Of Doors.

We believe that the very best way of handling farmyard manure is to draw it out and spread in the fields each day as it is made. Under our conditions, however, such a practice is impossible. As all the upland por-

CLARK'S CUTAWAY TOOLS

CLARK'S DOUBLE ACTION "CUTAWAY" HARROW WITH JOINTED POLE. It is made especially for a long day work. It will increase your crops 25 to 30 per cent. This harrow will cut from 28 to 30 acres, or will double-cut 15 acres in a day. It is drawn by two medium horses. It will move 15,000 tons of earth one foot in a day, and can be set to move the earth but little, or at so great an angle as to move all the earth one foot. Runs true in line of draft and keeps the surface true. All other disk harrows have to run in half lap. The Jointed Pole Takes All the Weight Off the Horses' Necks, and keeps their loads away from the disks. We make 120 sizes and styles of Disk Harrows. Every machine fully warranted. Send for FREE booklet with full particulars.

CUTAWAY HARROW COMPANY,
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BIG CROPS

tion of our farm is very hilly, manure so applied would largely be washed away. It is therefore necessary that we keep the manure in the barnyard or in large piles in the field during the winter. We have not a manure shed and as we are very careful in piling our manure, we do not lose much fertility through having it exposed.

The method which we follow in preserving manure out of doors is as follows: A level piece of ground is selected near the barn and several loads of muck are hauled and spread on this to hold any liquid that would otherwise leach away in our light soil. Starting at one end of this piece of ground, the pile is built about four feet thick. The sides are kept as straight as possible thus giving the rain very little chance to wash out fertility.

The top of the pile is left slightly concave to absorb the rain. The manure from the cow and horse stables is mixed and tramped down hard each day. We always take care to see that the rain water from the roofs of the barn does not flow near this pile. If it did, as is the case on some farms where the manure is merely thrown out of the windows, under the eaves, much of the fertility would be lost. Where only the natural rainfall reaches the manure practically no damage is done. Of course when manure is kept out of doors in this way, it is necessary to use quite a large amount of absorbents in the stables.

Occasionally, when the weather is favorable and a large amount of manure has accumulated in the yard, it is hauled out to the field where it is to be used the next spring and piled in exactly the same way. It is then handy work.

GREAT WASTE OF MANURE.

The United States Department of Agricultural figures out that the annual waste of barn-yard manure on the farms of this country, aggregates \$125,000,000.

HOW TO KILL THISTLES.

I have been trying for twenty years," said the poverty-stricken scientist, "to find some use for thistles."

"Why do you waste your time in such a foolish way?"

"Foolish? Don't say that. Think of the boon it will be to mankind if I succeed! As soon as any kind of use can be found for them they will quit growing unless they are tenderly cared for."—Chicago Record-Herald

DON'T KILL THE TOAD.

Prof. Washburn, of the Minnesota division of Entomology at University Farm, finds toads to be friends of the farmer. They feed entirely upon an incredible number of insects. The federal department of agriculture, investigating the toad, discovers the startling fact that in twenty-four hours the insect food consumed by one toad equals in quantity four times the capacity of its stomach, which is practically filled and emptied four times every twenty-four hours. One hundred and fifty-nine stomachs examined by the department showed a content of 19 per cent. of ants; 16 per cent. of cut worms; 10 per cent. of thousand-legged worms; 9 per cent. caterpillars; 8 per cent. of ground beetles; 5 per cent. of destructive weevil; 3 per cent. of grass-hoppers, together with crickets, spiders, sow bugs, potato bugs and a miscellaneous lot of other insects. Protect the toad. Teach the thoughtless boy friendliness to this helpless, harmless, useful animal.

POTATO SPRAYING.

Dry seasons tempt even those who believe in potato spraying to omit or slight the practice; but a study of Bulletin No. 323 of the Station of Geneva, N. C., should convince growers that they ought to spray regularly. The past three seasons have been exceptionally dry; and serious potato diseases have, temporarily, almost disappeared from the State; yet only one-fifth of about one hundred tests made by the Station or reported to it in these three years, have shown a financial loss from spraying, and the average increase, on more than 1,000 acres sprayed in the experiments, was 36 bushels to the acre.

The Bulletin summarizes the results of 32 Station experiments made during the past eight years, in which the average gain from spraying every two weeks has been 102 bushels per acre at Geneva, 51 bushels at Riverhead; and, from spraying three times during the season, 78 bushels at Geneva, 29 bushels at Riverhead. The average gain made by farmers spraying under Station inspection has been 51.1 bu. per acre for seven years on areas running from 60 to 225 acres each year; and by farmers spraying independently but reporting to the Station, on areas ranging from 74 to 600 acres yearly for six years, the average gain has been 52 bu. per acre. It is safe to say that the practice of spraying has saved the 288 farmers reporting experiments in the last seven years more than \$50,000.

HOME BEAUTIFUL

Conducted by Georgie Middleton Fisher

THE HOUSE FLY.

How It Breeds, Feeds, and Distributes Disease Germs.

It is a recognized fact that the common house-fly carries more dirt and disease than any other agency known. It is the commonest pest around the home, and many cases are on record where they are not fought or any effort made to keep them away from food and other things which are for the comfort of man. Typhoid fever, tuberculosis, smallpox, infantile diarrhoea and all other infectious diseases are liable to be carried from one place to another by the fly. If the germs which cause the disease are not destroyed and the fly allowed in where they are, they will be carried off on the feet of the fly and deposited where they should not be.

The fly breeds chiefly in stable refuse. The eggs are laid on the refuse and the young fly which is in the larval or worm stage of its life feeds upon whatever it can find in the refuse. At the end of about two weeks it finds its wings, leaves the manure heap with all the filth sticking to its feet and flies straight to the bread plate or the fruit jar—that is, if it can get there. When the farmer has been out at work hauling manure to the fields for the improvement of his land we are all shocked if he comes into the house without cleaning his feet and keeping the "horrible" smell out of the house. Should we not be just as particular with the fly? Men usually have sense enough to clean their feet if they see a mat or foot cleaner for that purpose at the door. Not so the fly. He hums right into the house and the first thing he does is to clean his feet on the top slice of bread which is on the table. Not content with that he circles around till he gets his feet on the sugar or the butter and continues on his death-dealing journey till he has tasted all the food on the table. Now he is satisfied and takes a spin out of doors for a change. While there he takes a stroll over the manure heap, across the cesspool, and along by the drain outlet. By this time he is tired and wishes he had some more sugar and syrup, so he takes his little aeroplane and sails into the house to reclean his feet on the bread and sugar.

If he has any disease germs on his feet, as well as the filth, he will leave them. The people of the house need the bread and have not thought of the travels of the fly and what filth he has left on the food. They eat the food, filth, germs and all. Perhaps there is in that family one member who is not as strong as he ought to be. The germs which he has swallowed find a suitable place for development.

His system is ready for their growth. In a short time he is sick and he does not know why. If he could have seen where the fly had been and seen the germs on its feet he would not have eaten the food and would have been saved doctor's bills.

Now the main thing to do is to keep the fly out of the house when you cannot prevent his breeding. Get the screens in the doors and windows and keep them there. Above all things keep the flies out of the milk. Milk is the best food for the growth of bacteria, and if the flies are allowed to wash their feet in the milk the germs they leave will soon grow and multiply and the milk will leave disease wherever it goes and whenever it is drunk. Keep flies out of the sick room. It is there that the disease germs are to be found in abundance, and if the fly is allowed in there it will soon have the whole family and perhaps the whole neighborhood ill. Flies may be killed by means of a weak solution of formaldehyde exposed in saucers in the rooms. This is made by adding a tablespoonful of the formaldehyde to a pint of water. Burning pyrethrum in the room is also effective. The best method of dealing with the fly is to prevent its breeding. Keep all stable refuse in the fields if possible. In many cases this is impossible, but we should keep our yards as clean as we can. The fly indicates filth, and we dislike to have people say that we are dirty.

WHEN BOILING MILK.

The one sure way to count on heating milk correctly is to cook it in a double boiler. It takes longer, but the possibility of scorching is eliminated.

These boilers are now so cheap as to be within reach of most housekeepers; but if cost must be considered, a large one answers every purpose. As most of us know how quickly milk burns when heating, it is well to know what to do when such a calamity overtakes us, and there is no time or no milk to begin over again.

Remove the pan quickly from the stove, and stand it in a bowl of cold water. Add a pinch of salt and stir well. While this may not entirely destroy the scorched taste, it lessens it, so that it can scarcely be detected.

ON IRONING DAY.

First, dress comfortably. A loose and thinner blouse than usually worn is of much advantage in keeping cool. When the work is completed, don the usual apparel, and the chilly, uncomfortable feeling so common after a day's ironing may be avoided.

If there is a big day's work, have an old cushion upon which to stand. No one knows how much it will rest the tired feet, unless she has tried it.

The irons should be clean and smooth. The board should be covered with a cloth in which there are no seams or patches, as these make shiny streaks or creases in any garment

pressed over them, which is especially undesirable in fine flannel or wool goods. An old flannel sheet is a very nice covering to tack to the board, and a light cotton one for a removable cover, as it can be washed easily.

A piece of beeswax tied up in a rag, to rub quickly over the bottom of the hot flatiron, will keep it smooth, and the iron will glide over the clothes much more readily, especially if they are starched ones.

In pressing any goods or clothes where it is customary to place a cloth over them before ironing, use a newspaper instead; it gives a gloss to ribbon or silk; leaves no lint; stiffens cambric, if it be slightly damp; and, when scorched, can be thrown away at no loss and a fresh one procured.

If seams are pressed over a broomstick or any rounded edge, with care in keeping them straight, there will be no shining streak to mark their length, as is often the case when the pressing is done upon a flat surface, as nothing can strike the wood but the point of the seam.

HAVE WATER IN THE HOUSE.

It has too long been assumed that a water supply and a bathroom in the home are a luxury that the farmer cannot afford. But figures show that this luxury, if you will, can be secured in every farm home at a moderate cost. Running water in a stable is looked upon as a necessity by many up-to-date stockmen. Is not the farmer's family of as much importance as the live stock? The boys and girls cannot be converted into so much ready cash, it is true, yet they are the home and sinew of the nation and should have all the comforts going in this life consistent with good health, if the cost is not too great.

Water in the home, with lavatory and bathroom attachments is certainly one of the things that should not be classed as a luxury. What if the cost of installation does run up to \$75 or \$100? Are not the comforts which they afford worth it?

Where a windmill is in use, there is really no excuse for not providing these comforts. They are possible too, without the windmill. In some

Paint Without Oil

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A Free Trial Package is Mailed to Every one Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powderpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, shingles and looks like oil paint and costs about one-fourth as much.

Write to Mr. A. L. Rice, Manufacturer, at North St., Adams, N. Y., and he will send you a free trial package, also color card and full information showing you how you can save a good many dollars. Write to-day.

cities, it is necessary to do some pumping of water to fill tanks for the use of bathrooms and the like. It is possible to do the same thing in country homes. The farmer who aims to have the comforts of water in the home is not getting above his position. He is only doing what is right that he should do for his family and himself.

A FEW GOOD THINGS TO EAT.

Brown Bread Pudding.

Take three-quarters of a pound of pieces of brown and white bread, break them small, cover with cold water and soak over night. Wring out as much of the water as possible, and break up finely with a fork, sprinkle four ounces of flour into this, add the grated rind and juice of a lemon, some grated nutmeg, sliced candied peel, two or three beaten eggs, and a little milk; pour the mixture into a basin, cover and boil for two hours.

Fruit and Rice.

Boil some rice in milk till it is cooked and very thick. Place a layer of the rice in a pie-dish, then a layer of stewed fruit rather highly sweetened. Add another layer of the rice and scatter breadcrumbs over the top. Put little pieces of butter on this and bake till a golden brown. A deep pie-dish may be used for this, and several layers of both fruit and rice put in.

Egg Toast.

Beat an egg with a pinch of salt. Take slices of bread and dip both sides in the egg. Put two ounces of butter in an enameled frying-pan, and when very hot set the slices of bread in it. Fry to a nice golden brown on both sides. Serve hot with white sugar sifted over.

Ginger Roly Poly.

Have some light suet crust, and roll it out to a quarter of an inch thick. Cover it with a layer of powdered ginger and grated lemon rind, sprinkle thickly with moist sugar, roll up, wet the edges, and press together. Tie in a floured cloth, and boil for two hours. Serve with some gooseberry sauce.

Macaroni and Tomatoes.—Boil quarter of a pound of macaroni in salted water, blanch and arrange it on a hot platter. Mince half a pound of raw ham, and brown it in a little of its own fat. Spread this over the macaroni; pour over the whole a pint of thick, stewed tomato pulp, garnish with dry bread crumbs browned in butter, and parsley.

Baked Cauliflower.—Boil the cauliflower whole in salted water, when tender drain carefully and put in a dish that will fit into one which is suitable to put on the table. Pour

over a drawn butter sauce, sprinkle with grated cheese, baste with melted butter, bake to a nice brown and serve.

Boiled Cauliflower.—Trim and clean the cauliflower and boil in salted water for half an hour; take out and drain, break apart carefully, and arrange in the dish in which it is served. Over it pour melted butter or a drawn butter sauce, and season with pepper and salt.

Puff Pudding.—Slice rather thickly some white bread, removing all crust, pour some scalding milk on it, and let it stand covered till the bread has absorbed all the milk and is well soaked; then beat it till quite light, working into it as you do so three or four eggs, sugar to taste, and any flavoring you please, such as grated nutmeg, lemon peel, vanilla essence or orange-flower water; half fill some small cups or molds with this mixture, and bake. Turn out and serve with apricot jam sauce.

FACTS FOR THE HOME.

In making coffee, observe that the broader the bottom and the smaller the top of the vessel, the better the coffee will be.

To prevent the smoking of a lamp soak the wick in strong vinegar, and dry it well before you use it. It will then burn clear and bright.

Beat a carpet on the wrong side first, and then more gently on the right side. Beware of using sticks with sharp points, which may tear the carpet.

To prevent a crust or scale forming inside a teakettle, place a clean oyster shell in it. This will attract what would otherwise collect on the side and bottom of the kettle.

To tell good eggs place the large end of an egg against the tongue; if it becomes immediately warm to the tongue, the egg is very fresh; if it becomes warm slowly, it is stale; if no heat is felt the egg is bad.

Hot alum water is the best insect-destroyer known. Put the alum into hot water and let it boil until it is all dissolved; then apply the solution hot with a brush to all cracks, closets, bedsteads and wherever insects are found. Ants, bedbugs, and cockroaches are killed by it, while it has no danger of poisoning.

"Bjones says he doesn't believe one-half of what he hears nor one-tenth of what he sees."

"Good; and those who hear and see Bjones don't believe any of what he says."

PRACTICAL EXPERIENCE.

The old farmer, equipped with the tools of his trade, was busy near the road.

"What have you growing in that field?" asked the innocent passer-by.

"Weeds," answered the granger.

"But why are you cultivating weeds?" queried the other.

"Because," replied the man behind the hoe, "after years of experience, I am convinced that is the only way to exterminate them."

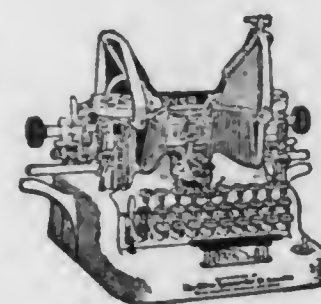
A \$100 Typewriter for 17 Cents a Day!

Please read the headline over again. Then its tremendous significance will dawn upon you.

An Oliver Typewriter—the standard visible writer—the \$100 machine—the most highly perfected typewriter on the market—yours for 17 cents a day! The typewriter whose conquest of the commercial world is a matter of business history—yours for 17 cents a day!

The typewriter that is equipped with scores of such conveniences as "The Balance Shift"—"The Ruling Device"—"The Double Release"—"The Locomotive Base"—"The Automatic Spacer"—"The Automatic Tabulator"—"The Disappearing Indicator"—"The Adjustable Paper Fingers"—"The Scientific Condensed Keyboard"—all

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We announced this new sales plan recently, just to feel the pulse of the people. Simply a small cash payment—then 17 cents a day. That is the plan in a nutshell.

The result has been such a deluge of applications for machines that we are simply astounded.

The demand comes from people of all classes, all ages, all occupations. The majority of inquiries has come from people of known financial standing who were attracted by the novelty of the proposition. An impressive demonstration of the immense popularity of the Oliver Typewriter.

A startling confirmation of our belief that the Era of Universal Typewriting is at hand.

A Quarter of a Million People are Making Money with

"The Oliver Typewriter"

THE STANDARD VISIBLE WRITER

The Oliver Typewriter is a money-maker, right from the word "go!" So easy to run that beginners soon get in the "expert" class. Even as you learn. Let the machine pay the 17 cents a day—and all above that is yours.

Wherever you are, there's work to be done and money to be made by using the Oliver. The business world is calling for Oliver operators. There are not enough to supply the demand. Their salaries are considerably above those of many classes of workers.

"An Oliver Typewriter in Every Home!"

That is our battle cry today. We have made the Oliver supreme in usefulness and absolutely indispensable in business. Now comes the conquest of the home.

The simplicity and strength of the Oliver fit it for family use. It is becoming an important factor in the home training of young people. An educator as well as a money maker.

Our new selling plan puts the Oliver on the threshold of every home in America. Will you close the door of your home or office on this remarkable Oliver opportunity?

Write for further details of our easy offer and a free copy of the new Oliver Catalog. Address

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CACTI FREE.

10 specimens free with each \$25 order. Dealers take notice—order at once.

Mrs. S. I. Pattison,
Wholesale Collector Cacti,
Mesilla Park, New Mexico.

ODDS AND ENDS OF INTEREST TO OUR PEOPLE.

THE ANGLERS.

Sunlight beaming,
Waters gleaming,
Fishes down below,
Mill-wheel whirling,
Two boys stirring,
On their way they go.

Fish rods twirling,
Straw hats hurling,
Way up in the sky;
Both are laughing,
Both are chaffing,
For their hopes are high.

Patience lasting,
Fish lines casting
Way down in the deep,
Despair fighting,
No trout biting,
Fishes are asleep.

Sun not shining,
Hopes declining,
Of those anglers two;
They're not laughing,
They're not chaffing,
'Cause they're feeling blue.

Home they're going,
No joy showing,
For they're just beat out!
I' their basket peeping,
I see sleeping
A tiny little trout.

Joseph N. Fleming.

Aged 13 years.

DOGS PREVENT FARMERS RAISING SHEEP.

Should be Kept in or Muzzled at Night.

The papers are telling the farmer that there is money in sheep and he is willing to admit it. They are the best and cheapest weed eradicator he can get, for they are turning weeds into wool and mutton and that is dollars and cents for the farmer. Then add the money he gets for wool and lambs, which can be placed on the market every year, and the farmer is satisfied that the sheep pays a bigger dividend on the money invested than any other kind of live stock.

The principal reason, however, why the farmer does not raise sheep is this—the dog. There are thousands of dogs running at large in towns, villages and in the country that are neither useful nor ornamental. A great many of them have to hunt their living. The dog is of the wolf nature, and when he runs into a bunch of sheep, why, the sheep have to suffer.

As long as the dog is allowed to run at large, the sheep industry will be dead. When a farmer goes out to his sheep in the morning and finds some wounded, others badly torn and a few dead, he goes out of the business. If every dog had to be tied up or had to wear a good basket muzzle between sunset and sunrise and this law were strictly enforced, it would not be many years before the Eastern States would be a factor in producing the world's supply of wool and mutton.

TEACHING HORSES TO STAND.

A team or a single horse that will stand perfectly still, until asked to move forward, is about as sure a test of the kind of a horseman the driver is as can be found. How often do we see some spirited horse stamping around, backing up, and then straining on the rein, while its driver is alternately jerking at the rein, and endeavoring to get the robe around his knees, or assisting some lady perhaps, to get comfortably seated?

There is a time when this matter can be remedied. It is when the horse is receiving its first lessons. He should be taught to stand absolutely still at all times, until he receives the word of command to move on. Moderately still will not do. It must be emphasized in the horse's mind that he must not move. If this is once done, and it takes a good many lessons to do it, the matter is practically settled. The horse's one stock in trade is his memory, and he will afterward stand still, so that the driver can make all preparations in comfort.

Perhaps there is no other thing which has done more to make nervous women apprehensive of horses than a few experiences with horses that would not stand still while the driver was getting ready. A horse which dances around at that time, exhibits little appearance of being under the control of the driver. As a matter of fact, he isn't, to the same extent as if he were trained to stand.

EXERCISE IN CLEANLINESS ESSENTIAL.

Exercise is essential to the welfare of both mare and foal. Green pasturage is of course the ideal environment for the brood mare, and especially by its cleanliness has a salutary effect in the prevention of ills. The early foal without the advantages of this environment is peculiarly liable to the contraction of disease from germs lurking in the stable.

HOW NOT TO USE THE WHIP.
There are a lot of people driving horses who do not know what the whip is for and do not know how to use it. We remember an old milk hauler back home who started out one spring with a three-year-old colt, a democrat wagon and a rawhide whip. The colt was of the ordinary general-purpose kind, and the driver an ardent believer in the use of rawhide on horses in the milk hauling business.

Inside of three months his colt was a "plug" and no amount of "walloping" could stimulate a stronger pace than a jog trot. The driver had played his "rawhide" so persistently that the colt had evidently come to regard the lash on his back as one of the phases of life not to be taken more seriously than the movement of the harness or the clatter of the wagon. His usefulness was impaired by bad training before he was four years old, and the owner was looking for a livelier piece of horse-flesh to go on the milk wagon the following year. He always claimed that hauling milk had a tendency to make horses lazy. Probably it had, but we always thought that what he called "laziness" arose merely from the fact that he had overworked the only remedy he knew for laziness—the gad.

BLOODED STOCK for July.



TREES AND FLOWERS ON THE FARM.

Many people are of the opinion that it is only the wealthy people of the city that can afford, and should have flowers and trees around their homes. In this they are sadly mistaken, for it is just as easy for the farmer to have these things as it is for the city man to have them. In fact it is easier.

The wind break is very easily had in the country where small evergreen trees can be secured for the carrying away. These trees are thoroughly acclimatized and will grow more readily in the same district than will the imported trees. Then, too, there is not the danger of shipping and the loss occasioned thereby. We can easily have our wind break and ornamental trees which should never be touched with the knife. Many people try and mould the tree into fantastic shapes by the use of shears and the knife, but this is a huge mistake, and they should leave the trees alone.

It is not necessary that the farmer should buy a whole lot of trees and shrubs from the nurserymen. There are many of both to be found in the woods. The common wild red dogwood is one of the prettiest shrubs that can be found, and is very easily grown. There are many others which might be mentioned, but the farmer knows them as well as we do, and he should try and make use of them.

LOADS AND ROAD GRADES.

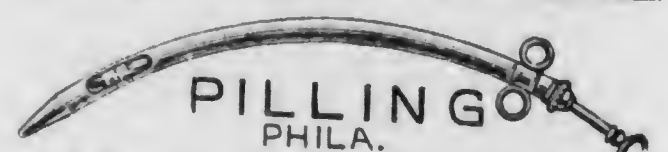
A 1 per cent. grade on a road means a rise of one foot for each hundred feet of distance travelled up the hill. A 10 per cent. grade means ten feet

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BLOODED STOCK for July.

rise in each hundred feet so travelled. A 1 per cent. grade, then, means that in travelling up hill one mile an ascent is made of 52.8 feet, while a 10 per cent. grade means a rise in altitude of 528 feet in a mile.

Accurate tests have shown the Minnesota experiment station that a horse which can pull 1,000 pounds on a level road can pull only 810 pounds on a rise of one foot in fifty, and on a rise of one foot in ten he can pull only 250 pounds.

These facts show that the greatest load that can be hauled over a road is the load which can be taken up the steepest hill on that road, or through the deepest mud pool. It is, therefore, advised that all highways travelled by heavily loaded vehicles should be kept within a 3 or 4 per cent. grade if practicable. To do this may require a change of location to get around hills, always keeping in mind that the lower the grade the larger the load may be hauled and the cost of haulage kept at the lowest point.

MAD DOGS.

Rabies has been stamped out in England. In the United States it is on the increase, and in several states it is really becoming quite alarming. Where the disease has been definitely determined in a city, there is sure to be a great furor, and it is up to the city authorities to do something.

No board of aldermen has ever yet been able to handle this problem satisfactorily. They are abused if they muzzle the dogs, and they are abused if they do not. If the dogs are not ordered muzzled, then the usual cry is heard that some people think more of the comfort of their dogs than they do of the lives of their neighbors' children; and I am not sure but this is true.

If the dogs are ordered muzzled, then Rover's peace of mind is wantonly interfered with, and, besides, he is such a good dog that he would not bite any one even if he were mad. Dogs not muzzled are ordered shot and this makes life a burden to the policeman as well as the dog population.

Lastly, there are always sure to be a few who will declare that this mad dog business is a fake, anyway as there is no such thing as Rabies; this in spite of the fact that at the Pasteur institutes they are producing the disease purposely by inoculation to get attenuated virus to treat people who have been bitten.

The fact that we now have a treatment that will positively prevent the disease developing after a person has been bitten, removes some of the terror, and in some instances has led to an indifference that is little short of criminal.

There is really no occasion for getting excited over the presence of a mad dog in town, that is, I mean after he has been killed. If other cases develop, then the only way to insure the safety of the people and the lives of all warm blooded animals is to muzzle the house dogs and shoot all the strays.

A person bitten should go at once for treatment.

GEO. H. GLOVER,
Colorado Agricultural College, Fort Collins.

THE BARNYARD WELL.

On this pure water question d'd it ever occur to you what filthy dirty water the live stock kept on most farms have to drink? The barnyard well is the source of supply unless there is a running stream on the farm. For convenience this well is located right up near the stable door, and frequently in the centre of the barnyard itself. There it does duty in providing water for the live stock year in and year out. It receives the drainage from the barnyard and pollution from other sources. The water takes on the color of its surroundings and the stench as well, and becomes the breeding ground for all kinds of injurious germ life. Thousands of animals kept on farms drink water of this description, and their owners wonder why they cannot make live stock keeping a profitable business. Disease-laden water will affect a domestic animal just as much as it will affect a person. It is nothing short of cruelty to animals to compel them to quench their thirst at these foul cess-pools, to say nothing of how the farmer's pocket book is affected by such practices. Fill up the barnyard well if it cannot be kept clean, and dig one elsewhere. Give all farm animals pure water to drink and they will give a better return.

COUNTRY SCHOOL GROUNDS.

Rural Schools and their surroundings are often the most unsightly spots in country districts. There is no attempt at ornamentation. Not a green thing to be seen in the whole school yard excepting a blade or two of grass that may have preserved their identity in spite of adverse circumstance. No tree or shrub is to be seen, no flowers, no nothing, but a mere bare piece of ground fenced in. Why some trustees go to the expense of fencing in such uncongenial surroundings is often a mystery, without it is to keep some of the farms from getting a foothold. Amid such surroundings many boys and girls form their first impressions and grow up to men and women, without having their taste for the good things which nature provides cultivated in the least. Is it any wonder that country boys and girls are weaned away from the farm? The schools and the school grounds should be the most attractive spots in every neighborhood; and they can be made such with little trouble and expense. The growing child learns more than is imparted to him from books. He learns from his surroundings and forms impressions from them that remain a lifetime.

FIX UP THE SCHOOL HOUSE.

Give the schoolhouse a coat of paint, then repair the fence, and above all, plant trees, flowers and shrubs, arrange the trees and shrubs along the outer edge and plant flowers around the school and along the fences and streets. Arrange them so as to give a view of the road that will call forth a gasp of admiration from passersby, have plots for the boys and

SAVE HALF THE LABOR

in sawing wood. You can do this and at the same time, cut more wood in a given time than in any other way by using



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girls to grow what they like in, and have the teacher explain things as they grow.

Now, parents, just think it over. Get together and talk it over, arrange to make your school grounds one of the brightest spots in the country. You will find your children have a love of schooling and will learn far more rapidly; it stands to reason. Plant corn in the cellar and you have a stunted growth, but plant it out in the sunlight and God's free air, and what do you get? Why a plant full of vigor. It is the same with your children. Keep them in a dark, neglected school room and they will take no interest in their work, but on the other hand give them a bright school-room and they rapidly develop into men and women full of energy.

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FARMING IN PALESTINE.

"My impression of the primitive conditions of life in Palestine was somewhat spoiled by a bit of American enterprise during my trip through the Holy Land this summer," said Milton R. Wells.

"With about 20 other Americans I made the usual tourists' journey to all the points of interest. Almost everywhere we found the people living under practically the conditions of 2,000 years ago. Of course, we got a little jolt when we walked into the telegraph office in Jerusalem, and later sat down to a regular table d'hôte dinner in the hotel, but we were informed that, as soon as we left the city and got into the country, we would find ourselves in a world of centuries ago.

This was true for a while. But imagine my surprise when taking a drive through the country in Lebanon region, about half way between Beirut and Damascus, to see a big steam plow tearing up the earth at a prodigious rate. We might just as well have been looking at a big farm in North Dakota. Naturally I was somewhat curious, and I made an investigation. I learned that an agent of an American implement firm was making a demonstration for the benefit of the natives. He had been in the neighborhood for about a month. I was

interested, of course, and he seemed to be willing to talk. As a result I got a lot of information that usually doesn't go with a tour through the Holy Land.

"The plow used by the native Syrian is nothing but a forked stick. It is drawn by oxen. This primitive plow doesn't make much of a furrow, and it takes two men and a yoke of oxen an entire day to plow half an acre. Plowing begins early in the spring and continues until July. By that time the soil is hard, and the difficulty in turning it up increases. The American demonstrator said the natives were absolutely wonderstruck by the rapidity and ease with which the ground was prepared for planting by modern machinery. With two men in one day, he said, the steam plow did as much work as could be accomplished by 60 men and 60 oxen with the native implements."

FOOT AND MOUTH DISEASE.

Foot and mouth disease is no respecter of countries. It having been officially declared to exist in the Republic of Uruguay, the Argentine government has issued a decree closing the ports against cattle, sheep, goats and pigs. Horses may be admitted subject to special disinfection.

MULES VERY VALUABLE.

Discussing the mule, Denver Field and Farm says: Mules have been going straight up as long as we can remember and a western railroad contractor paid \$14,000 for sixty head the other day. These hybrids are being more extensively used right along. In the grading camps and on the irrigation work here in the west they have almost entirely supplanted the horse. They stand much more wear and tear and are good for three times the amount of work of an ordinary horse, so anyone can see why they are worth a lot of money. A friend of ours has made a considerable fortune out of mules in ten years, beginning with just enough to buy a jack and a few footsore old mares off the range. They grow fast and are ready for market in two years and a half. A good mule is worth \$200 any day, and will oftentimes bring twice that much. No one can tell the age of a mule by its teeth either. The man who says he can is crazy. There is no real way to tell a mule's age. General Grant was right when he said that it just lives and keeps on living long after horses that started out at the same time have been used as glue.

THE BLOODED DAIRYMAN AND POULTRY RAISER



FATHER'S OPINION.

The "uplift" held her every thought,
She'd fain convert the Hottentot;
And while she contributions sought,
Her home became a filthy spot.

Her children screamed and bumped their heads
And very seldom had a bath;
Soiled clothes and books were piled on beds
And father strove to curb his wrath.

Yet, could but murmur in his woe,
"Tis true, from far Cape Horn to Nome,
While heathen kids may grovel low,
All true reform begins at home."
—Birmingham Age-Herald.

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OF INTEREST TO YOU

THE FARMER'S INCOME.

We are not among those who believe that the farmer is making more than he should from the land. The farmer works hard, and should have a liberal reward for his toil. At the same time he often looks upon the dweller in the city with envious eyes. The man in a city with an income of \$1,500 to \$2,000, and even \$3,000 a year, is considered by many to be in affluent circumstances as compared with the farmer. But there may not be so much to envy after all. With food and clothing for himself and family to buy, and with house rent, coal bills and light to pay for, the city man has to live very economically, even on those salaries, to save anything worth while. If he can save a hundred dollars or two during the year he may consider himself lucky.

The farmer measures his income by what he saves. To make an exact comparison between himself and the city man he should measure his income by what it cost himself and his family to live in addition to what he saves. The city man has to pay taxes on his income over a certain amount. A new taxation law has been passed in Sweden, which taxes the farmer on income. This is got by crediting the farm with house rent, all home-grown products consumed, the expense of carriage and riding horses, not used in farm work, etc. In fact everything contributing to the farmer and his family's personal comfort or pleasure must be charged as personal expense in making up the farm income.

This is pretty radical legislation for an agricultural country and will not be needed in this country for many a day, we hope. At the same time it serves to draw attention to the fact that the farmer's income cannot be measured alone by what he saves.

MAXIMUM MILK YIELDS AND HOW TO GET THEM.

(Concluded from July.)

The yield of milk does not depend upon the shape or size of the cow's horn or the length of her tail, but upon the strength of her vital organs, liver, stomach, lungs and heart, to send the rich, red blood coursing through her veins. Vigorous lungs are necessary to feed and stimulate the nerves to greater effort. It takes vigor and stamina in a cow to produce big yields, and it should be our endeavor to build up animals possessing great vigor. Instead of that we have in many cases done the very opposite. Born from parents low in condition and vital force, stunted during their young lives, is it any wonder there are poor milking cows?

Many cows can be greatly improved by giving them good care, especially those which have the milk giving instinct, but have never been fed enough to develop their latent forces.

It is generally considered that in making a cow fat the conditions are fulfilled for developing the yield. This is not a true statement of the case. The fat is generally the sign of thrift, but an animal may be made as fat in three or four months as she need be. The real thing is to develop the organs, such as the heart, lungs, stomach, etc., and nervous force. This is a matter of slower development. They can be developed greatly by continuous good feeding care. If an animal were made fat under unhealthy conditions then there would be no gain, as the vital organs would not be developed, but may become diseased. It is not possible for an animal, with, say, diseased lungs, to be a good producer, though we know of such animals which have become fat.

THE LUNGS.

The lungs play a very important part in production. It is through

them the stomach is able to do its work. The air supplied by them invigorates the blood and the nerves depend for their efficiency upon the air supply. But it is easy to understand that the lungs being taxed so heavily, may soon become weakened and diseased if the air passing through them so freely is not pure, but contains poisonous elements perhaps.

If we consider the development of a grain of corn we will come to a working understanding or get a little idea as to how the cow may get such large yields from a comparatively small amount of food.

To get a maximum yield of corn we start with a vigorous kernel of corn. Then we plant it in rich and suitable soil. But the corn does not get all its growth from the soil. It also draws from the air. Why is it not possible then for the cow to derive elements from the air combining these through her nerves with the food to produce milk? I believe the fat in the milk is controlled through the nerves and variation in fat yield is due to how the cow feels. Cows have a wide variation in their nervous temperament also. They are, no doubt, like human beings, subject to elation and depression of the nervous system.

Getting Maximum Yields.

We have said that it takes at least two years to bring a cow up to her maximum yield. When a cow has not been well cared for the feed and care we give during these two years is returned to us a long while after. Considering this it will be seen how impossible it is to get at the cost of production. The production of large yielding cows is made possible by continuous good care. To charge up the food consumed only then, is misleading and a delusion. We are really getting the result of former good care and feed and it should be charged up. But to come to the amount to charge from the year or two previous

BLOODED STOCK for August.

ious is an impossibility. The cost of production, therefore, is one of those questions that must ever remain unanswered. We could get at the amount fed at the time, but that is only part of it. There has never been a big record or even a fair record made by a cow, whether for a week or a year, but that the work has been made possible by at least three conditions: which are, the breeding, development and handling whilst production is going on.

The feed a cow is fed during heavy production should be considered, but at the finishing of the edifice, of which breeding is the foundation and development is the superstructure.

Feeds.

That the cow needs good feed and care whilst producing heavily is plain, to make up for the tax upon her. That this feed needs to be of a succulent nature is not due to the "juice" it contains nor yet to the "dry" matter so called, but to the digestive matter it contains. Succulent feeds are as a rule more easily digested. That is why grass beats hay, and some hay is so much better than other hay. It is why roots beat ensilage. The nutriment in roots is nearly all available at once. Ensilage is variable depending upon how it is cured or made. The "dry" matter may be there but is it available at once to the cow? Producing is working at an express rate and cannot wait. Take an example:—there is undoubtedly plant food in saw-dust or shavings, but it is of very little use as it is not available to plants. There would have to be decay, etc., and that takes time. A cow that has been gradually developed has much more vitality and she is also more able to handle the food given her as her digestive organs have been developed.

Looks Complicated.

This milk making business looks like a complicated thing which no one can understand. We do not have to because the cow understands it. What we have to understand is that she is no cider-mill, but a living, sensitive animal, giving us of her very life blood. No one in the dairy zone has a less equal chance to get as great results as frequently mentioned in the farm papers, great as they are and showing ability and perseverance. Somewhere even now there is very likely being bred or developed a cow that will beat Dekol Queen La Polka and. Every record seems to be made to be broken by some one else. Will you be the lucky one?

Is it a Lottery?

Too much of a lottery say you. Marriage is said to be a lottery, but nearly all have the nerve to take a chance. There is no lottery about large milk records. No one has a ghost of a chance to draw the grand prize who makes but a small effort. On the other hand there are no blanks. Everyone gets according to his work, only there are grand returns for good effort. True, some do not get much, but even they, get better than they deserve. It is a safe bet that those who get only 20 lbs. of milk a day should have 20 days and a pounding. They are cow robbers, not dairymen. True, those who get large milk yields must work hard, but the rewards are splendid compensation.

TO RAISE MORE SHEEP.

With an eye on what has been done in Canada and England, the farmer in some sections of the United States is considering if it would not be well for him to raise more sheep. Having been kept chiefly as an adjunct to other live stock, sheep are said to have not had a fair trial on the farms of the U. S. Farmers are beginning to realize that sheep are very valuable in the conservation of soil fertility, in keeping roads and fence corners tidy, in converting roughage into marketable products, and in eradicating noxious vegetation.

Much nutritious forage is going to waste on the farms of the United States, because the farms are not fenced for pasturing. And much vegetable growth that is not considered good for cows would be used by sheep. Also, although cows must be kept away from places where there are poisonous weeds, sheep can safely graze in the fields containing such weeds. Moreover, sheep can keep fence corners and pasture fields free of brush. Another point that appeals to the farmers who are considering keeping more sheep is that sheep can keep large lawns mowed cleanly and so save the labor of using the lawn mower. Many large lawns and parks maintained on English estates are mowed by sheep, and lawns and farms in Canada are kept tidy by sheep.

A NEW BREED OF SHEEP.

A new breed of sheep has been produced in England, and the originator is just beginning to offer a few specimens for sale. As to the merits of the breed I can say nothing, but a few lines regarding the founder's ideas and methods may be of interest. His notion has been to get a black-faced long-wool and lustrous wool so as to obtain the fleece and at the same time not lose favor with the butcher who likes black-faced mutton. He began a quarter of a century ago with the speckled-faced longwools to be found in Devon, choosing the darkest. By selection of the blackest-faced breeding stock and the drafting of others to the butcher he claims to have got what is practically black-faced longwools and he has something over a thousand of them.

Some ten years ago he was able to buy the best of the stock of a Cotswold man who had been working on the same lines, but had tired of his self-imposed task, and this infusion of fresh blood mixing with his home-bred, strengthened his stock. He is confident of the future of his breed, named the Black Faced Lustre Longwools, but how far it will meet with approval we do not pretend to say. If he can get Down mutton and Lincoln wool he will do well, but a black face may not necessarily mean first grade mutton.

Only when independent breeders have tested the variety can anything be said about its merits.

WHERE STALLION LICENSES ARE IN FORCE.

Prof. W. R. Richards, Secretary of the Stallion Registration Board for North Dakota, reports that 2,828 ap-

plications for licenses have been received to date. Of these 1,697 were grade and 1,131 pure breds. 2,481 have been examined. Licenses have been issued to 1,377 grades and 929 pure breds. 86 were refused licenses on the ground of not having genuine pedigree; 88 pure breds have been declared unsound and 88 grades. This law has been in effect since January 1st and a number of owners have not yet applied for licenses.

TO IMPROVE A POOR WELL.

Fill Up And Abandon All Badly Located Wells.

The common type of dug well is unlined or lined with stone or brick without cement. In this well, surface water may enter without being properly filtered, and even when the lining is set in cement, the cement may crack and let in surface water. To improve these wells it is necessary to alter them so that surface water entering them is filtered by passing through at least 10 feet of soil or sand.

One method of improving such a well is to place a lining of vitrified tile inside the old lining. The bottom tile is placed on a firm base, the lower two or three tiles are perforated to admit water. The joints between the tiles above the water level are set in cement or puddled clay. The space between the old lining and the new is filled in with coarse gravel around the perforated tile, and above that, with sand to within 10 feet of the top. The top 10 feet is filled with clay well puddled. The puddled clay prevents surface water entering the joints between the tiles, should the cement crack. In this well no surface water can enter without having passed through 10 feet of soil.

Here Is Another Method.

A galvanized iron pipe is fitted with a strainer and let down into the well. The well is then filled in around the pipe with coarse gravel at the bottom and then with sand. The top 10 feet or more, should be sand. The surface is sloped away from the top of the pipe. The cylinder and suction pipe of the pump are placed inside the pipe. The water which enters this well must pass through at least 10 feet of soil.

Still Another.

The well is used as a starting point of a driven well. This is possible when the soil below the bottom of the well is porous. Care is taken that surface water must pass through 10 feet of soil before entering the pump. For example, if the point is driven 5 feet below the bottom of the well, the well is filled with sand to 5 feet or more above the bottom.

And a Fourth Way.

The well may be used as the starting point of a drilled well. Since the casing is carried down to the rock and wedged into it, surface water cannot enter the pipe, and it is not necessary to fill the well. Should there be any doubt of this, however, the space between the casing and the lining should be filled with sand.

If a well is located near a privy vault or in a barnyard, it should, in every case, be filled up and abandoned, and a new well sunk.

THE COW AND THE DAIRY

SOME GOOD HINTS ON FARM BUTTER MAKING.

Cleanliness and How to Obtain It—Preparation of the Churn—Two Methods of Salting.

In the Canadian Farmer, Mr. P. A. B. Cherry has an article on butter-making that contains much of value to our own people, and we therefore reprint it with few changes.

"In order to produce high-class butter the first essential is to have pure milk. And in order to produce pure milk great care must be exercised to keep it free as possible from bacteria and all foreign matter. 'Cleanliness is next to Godliness,' and it is only by observing this maxim that a farmer can produce good milk. It is impossible to produce sterile milk, but it is quite possible to exclude a great number of noxious bacteria which enter with dust and dirt of all descriptions. The stables should be sanitary and easily cleaned and should be thoroughly white washed twice a year; and they should always be cleaned out, not before, but after, milking. Neither should any feeding be done just before or during milking as this will raise the dust, and the air will consequently swarm with microbes.

Many farmers scoff at the idea of having a special milking suit of clothes, but such a suit is necessary and should always be donned for milking. The milker, too, must be clean and make it a rule to wash at least hands and arms before milking. *Wash the flank and udder of the cow just before milking and then less dust and dirt will be displaced by the milker.*

It has been proven that after the first few strippings have been taken from the cow the rest of the milk is practically sterile before it comes in contact with the air, so this points to the advisability of milking the first few drops of milk into a different receptacle and disposing of it by some such method as giving to the cat.

Care of Milk.

As soon as one cow has been milked, the milk should be taken away from the stable and emptied into another can and covered up with a clean muslin cloth. And as soon as all the cows are milked the milk should be conveyed to the dairy and at once strained through three thicknesses of clean muslin. No matter for what purpose milk is required it is essential to remove, by means of filtration, as much foreign matter as possible. It is impossible to manufacture any good dairy product from contaminated milk.

It is advisable to separate the milk as soon as possible after milking as then it will not need heating up artificially. The temperature for separating is from 85 deg. to 90 deg. Fahr., and in the winter it is often necessary to heat the milk to this temperature by standing it in a can of hot water and stir thoroughly.

Set the separator to skim a 25 per cent. cream. As soon as separated the cream should be placed in a glazed, earthenware crock, and from half

a pint to a pint of buttermilk, obtained from a churning of good flavored butter, added to every gallon of cream. And it should be kept at a constant temperature of 65 deg. Fahr. until at least 2 hours before churning, when it should be cooled down to the necessary churning temperature, 60 deg. in winter and 55 deg. Fahr. in summer.

The crock should be kept in a clean, well-ventilated room, and in order to exclude foreign matter, a muslin cloth must be kept over the top. Keep the cream stirred as often as possible. This will supply oxygen to the lactic acid organisms as they work best when plenty of air is present. Also it will keep the cream of uniform consistency, and will evenly distribute the bacteria and so avoid uneven ripening.

Ripened Cream Preferable.

There are numerous reasons why ripened cream is preferable to sweet cream for making butter, one reason being that there is less loss of butter fat in the butter milk, because the viscosity of the serum is reduced and thus the mobility of the fat globules is increased. Besides this the butter will keep longer, be firmer in texture and have a more pleasant flavor.

When adding fresh cream to the crock, see that they are both the same temperature or approximately so; also add the last lot of cream to the crock at least 12 hours before churning so that the whole may be evenly ripened.

About a half of one per cent. of acid is the correct amount for butter making, and this stage of ripeness is characterized by a pleasant acid taste.

The churn, preferably an end-over-end one, should be scalded, scrubbed with salt and cooled down with cold water to approximate the temperature of the cream. If the churn is not scrubbed with salt there is a tendency for the butter to stick to the sides and cause trouble and loss.

Churning.

When ready the cream should be poured through a muslin cloth into the churn. And after rinsing out the crock with a little cold water place the lid on the churn and revolve several times and then open the valve to allow the gas to escape—repeat this three times if necessary.

Under ordinary conditions cream should not take longer than twenty minutes to half an hour to churn; but there are many instances when it is churned for hours, and sometimes even for days and then, given up as a bad job, sent to the creamery.

When "sleepy" cream is the cause of the trouble the temperature should be slightly raised by adding a little warm water, and after replacing the lid, ventilate and churn with a somewhat jerky motion, when the butter will usually "come" in a short time.

Another frequent cause of the butter not "coming" quickly is the speed at which the churn is being revolved. If revolved too quickly the cream will stay at one end of the churn and consequently there will be no concussion, so that the cream would never churn. As soon as the butter commences to separate from the buttermilk, breaking water may be added.

Generally about one quart of water to every gallon of cream is added at several degrees lower than the churning temperature. Stop churning as soon as the grains of butter resemble grains of wheat in size, and then wash it.

Butter may easily be over washed, which is detrimental to both flavor and color. Usually two washings will suffice—one being done by spraying the butter from hose pipe or in some other way, and the second by half filling the churn with water and revolving briskly several times. The temperature of the wash water should always be regulated inversely to that of the dairy atmosphere.

Salting.

There are several different ways of salting butter, and all of them require careful handling in order to get the salt thoroughly incorporated throughout the butter. Only the finest butter-salt should be used. The two commonest methods of salting are:—dry salt and brining.

When dry salting is practised the butter in the granula form is scooped out of the churn into a muslin cloth, tied up and weighed. It is then spread out on the worker and the weight of the muslin is deducted from the total weight of butter and muslin. After knowing the weight of butter, it is easy to calculate how much salt is required. In determining the amount of salt to put in, one must consider the demand of the particular market for which it is destined. Many customers, especially Old Country people, prefer light salted butter which contains from 1 to 2 per cent. salt, while others will prefer 4 to 5 per cent. of salt.

There can be no doubt that the flavor of the butter is shown off to better advantage, if good, in the lightly salted butter. Also, it is often found that in the heavily salted butter the flavor is bad, and much salt has been added in order to drown the flavor.

The amount of salt used is from a quarter to three quarters of an ounce per pound. Very finely ground salt must be used and this should be dusted evenly over the butter when spread out on the worker and then left for a few minutes to allow the solution of the salt to diffuse throughout the mass.

All that now remains to do is to work the butter in order to incorporate the salt evenly and to get rid of



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BLOODED STOCK for August.

any excess moisture. The most satisfactory worker to use is the lever worker.

Always make it a rule never to touch the butter with the hands if possible.

Brining Method.

As regards the brining method, the butter must, of course, be in the same granular stage as before mentioned. The brine is made while the butter is in the wash water that precedes it, or 11 to 12 lbs. of salt to the gallon of water. When the salt is thoroughly dissolved pour the brine on the butter through muslin, then allow the butter to stand in it for twenty minutes. The advantages of this system are that the salt is bound to be perfectly dissolved and evenly distributed through out the butter, both these points being essential to the first class article.

The greater amount of working (within reason) that the butter receives the less moisture will it contain, but care must be taken not to overwork the butter or else the grain will be destroyed and the butter will become greasy, which is not desirable. The moisture content of good butter should not go lower than 12 per cent. and not higher than 15 per cent. It should certainly never run higher than 16 per cent., as it then goes beyond the law limit.

If the butter is for immediate consumption it may be put up into rolls or pound prints and marketed straight away, but if it is intended for storage it should be put into crocks and packed solid with a wooden beater. In filling the crock leave about half an inch at the top and place on top of the butter a clean white cloth, and put on top of this a layer of salt which will exclude the air and will keep the butter for a considerable period.

In order to keep butter in good condition a low enough temperature must be maintained so as to check bacterial growth, which is the direct cause of butter spoiling. For this purpose a temperature of 40 deg. Fahr. or lower should be maintained.

TEMPTED BY BIG PRICES.

Farmers in the district about Chicago have parted with their big mares and big draft teams because of the high prices for draft horses. Consequently many counties in Illinois have poorer work teams than they had five years ago. Also hog producers in the Chicago district have sacrificed their breeding sows because of the high prices on the hog market.

PROFIT IN RENEWING OLD ORCHARDS.

It is an evident fact that there are hundreds of old orchards containing thousands of trees in a decaying and dying condition all over the country, and it is a sad reflection on the energy and intelligence of the farming community of this progressive country that such a thing should be, or allowed to exist for a single season when a little study and a determined effort on the part of the owners could remedy it.

There is no doubt that many farmers would be glad to change the conditions if they knew how to go about it, while many also are satisfied to let things remain as they are from pure indifference or ignorance of the pro-

fits to be derived from the orchard if properly attended to.

What every farmer can do is to thoroughly plow the ground underneath the trees, tearing up the old sod thoroughly, no matter if he should plow up many roots in the operation that will result in new roots being thrown out, far more active than the old ones.

A liberal top dressing of any good fertilizer should be given. Barnyard manure is the best; wood ashes are capital to use also for the potash which they supply.

In the following spring, give the trees, during the month of March, a severe pruning, cutting out all dead branches, suckers and interfering braches. Finish up by scraping all the old, loose bark off the trees, thus giving the trees as it were a good currying. A useful tool for this purpose is a hoe, this scraping off the bark not only gives the trees a clean, healthy appearance, but is also effectual in removing the larvae of insects injurious to the trees.

Other necessary operations of drainage, clearing out overgrown corners, etc., any average farmer can do without any expert advice.

Old Orchards Rejuvenated.

There is no orchard too old to be operated on. I have known trees two feet in diameter, half rotted through to be completely rejuvenated. Branches were cut back to a diameter of six inches, around which four to six grafts were inserted and all grew vigorously. Half of the limbs on the tree were thus treated, and the next year the other half; and in from three to five years the tree was in full bearing, healthy and strong. This may seem an heroic treatment, but consider this—the tree at first is useless and unprofitable, but it is established and took twenty-five to fifty years to arrive at its present size. The roots like the branches above are at a standstill.

Saw off half the branches above, and what is the result? The whole force of the sap is made to act upon the branches remaining. The buds and foliage being reduced by the branches being cut off, the sap feeds only the new growth and produces vigorous young shoots. These, having larger leaves exposed to the sun and air, form new wood on the stem and excite the roots into livelier action. New roots are found also, and thus the whole tree is renewed and invigorated. This result also can be expected in old decaying trees of good varieties if the same heroic treatment is accorded them by vigorous pruning and cutting back.

Pollarding and Grafting.

Many people from Europe are familiar with the custom of pollarding. Beeches, willows, poplars and oaks are pollarded, that is, all the branches are cut off, leaving the stumps which throw up another new growth to be again cut back in a few years time. The branches thus cut off are used for firewood cheaply.

This is the idea, pollard your orchard to renew its vitality, and graft to renew with good varieties. This being carried out, accompanied by cultivation and manuring, spraying and fruit thinning, the apple crops of this country would be increased easily fifty per cent. in quantity and quality. It takes ten to fifteen years to bring a young orchard into profitable bear-

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ing, but an old orchard, now useless from neglect and dormant in vitality would be in full bearing in three to five years if treated as I have said.

CRUELTY TO ANIMALS.

In cities and towns the humane society sees to it that no dumb animal is abused or treated with cruelty.

In the country, the dumb animal has no such companion. He may not be needed, though occasionally one hears of animals in the country being cruelly treated or so neglected as to feed and care as to make existence a hardship.

To the intelligent farmer, however, the dumb animal, whether it be a horse, a cow, a sheep or a pig, is an asset of which it pays him to take care of. Abuse of an animal touches his pocket-book, and consequently, aside from humane considerations, the domestic animal on the farm receives decent treatment. Yet there may be here and there a farmer who does not give to his animals the treatment they deserve.

A rather interesting case of this kind comes from Scotland. Two persons, the owner and the grazier, allowed their sheep to become badly infested with maggots, and were brought before the Sheriff of the district for cruelty to animals. The charge was that they did cruelly ill-treat these sheep by failing to keep a sufficient watch over them to ascertain whether they were attacked by flies or maggots, as a result of which neglect on their part, these ewes were subjected to severe suffering and three of them died. The charge was brought under the cruelty to animals act, and both were fined, the owner, £5 (\$25) with the option of twenty-one days imprisonment, and the grazier, £3 (\$15) with the option of fourteen days imprisonment.

This case, so far as is known, is the first of its kind ever brought into court. It is not to be supposed that these parties wilfully allowed their sheep to become infested with maggots. But it was shown that they had neglected to give the sheep the care and attention that would have prevented any occurrence of this kind.

INQUIRIES WANTED.

This paper is here for your service. We want to make that service as complete as possible. We are publishing it to make it a first-class farm paper in all its departments. The services of the management and the paper are at your disposal.

HOGS

HOW TO FEED FOR DOLLARS.

How to Feed the Pig From Birth Until It is Raised to Breeding Age, or Until Ready for the Pork Barrel.

Perhaps there could be volumes written along this line and still leave something untold at the end.

One of the greatest features is careful observation on the part of the feeder. Learn to know where and when to change feed, and learn to do it in advance of something that may follow a continuance of the same feed. It is a very easy thing to see when a pig is off his feed and going wrong, or when he is short of feed and shows it. Overcome these things before they happen.

In raising or increasing the feed it should be done by degrees and slowly, always keeping a good, strong appetite. Never overfeed, so that it is necessary to use something for an appetizer. Let nature do this, and she will do it, if judgment according to the laws of nature is used by the feeder.

In developing the young it should start before the sow is bred. She should be in perfect condition to start with.

That is what counts on the number of pigs to the litter, and she should be kept gaining slowly and be in good flesh when farrowing time comes. Her feed should be of the same nature during this time that she will receive after the pigs are born. This plan, if followed closely, and not too heavy feed after farrowing is avoided, will prevent many of the troubles of the pigs along the line of not thriving, as the thrifty or unthrifty condition largely depends on the hawels.

Proper diet for the mother with proper surroundings makes a big difference in the profit or loss. As soon as the little fellows want to eat have a little shelled corn for them to pick at on the side. Let them have all they can eat, until you notice that they are putting on an excessive amount of fat. Then allow them a light feed of good middlings if you do not have milk; have them mixed thick, and if you use any oil meal, it should be fed very lightly, as it should be used in proportion to the amount of corn that accompanies it. Never stuff or crowd them; just keep them growing, and raise gradually on their feed as they get older.

Keep them in such flesh that it will take sixty days to prepare them for market on a good feed. Then you are growing the pig and developing his bone and muscle. Hogs of all ages should have free access to good pasture and shade and water at all times that the climate where they are raised will permit. Separator milk fed sweet, corn and grass makes an ideal pig feed when the milk is to be had. It is not to be had in my case, and I have to use a substitute, which I do in a good grade of red dog or middlings, not less than 16 per cent. protein.

Milk can be fed in too large quantities—too much is as bad or worse than not enough. Always feed just the same amount unless it is necessary to make a change, then do it gradually and by degrees in all cases and all feeds. You had better throw the milk away than overfeed. Now, understand me. I do not advocate starvation by any means, but do condemn the rush of careless feeding or fattening a young pig to a finish, and then expect to use him as a breeder. This will cause a standstill for many months and will disgust a buyer with his purchase. No more overfed pigs for me in the breeding pen, nor the reverse. A shell, starved until the stomach does not yield the necessary elements to develop the animal, is all wrong.

Do not wean the pig. Let him have the mother milk. In most cases the sow will milk quite well for ninety or 100 days. Get after the worms. Be sure that they are out of the sow before breeding and remove them from the pigs as soon as they will eat. Do not delay this, for you can bank on it that there will be some there. Do not keep feeding appetizing stimulants. Keep the appetite good by feeding a variety of food and feeding it in the right way. The last but the greatest necessity is to use a good sire every year as well as selecting for the mother a sow with motherly characteristics.

If you are raising hogs for the pork market as well as for breeders, do not overlook a very important part, viz.: to keep at least a good percent of matured sows, and further, do not allow the breeding sows to be kept with the fattening hogs, and when the fattening hogs are gone endeavor to reduce their flesh and breed them. This is simply going backwards.

Have different pens for the fattening hogs and the brood sows, if success is the object of raising pigs, and yet do not starve the sows. Feed them on flesh-forming foods, and give them plenty of range for exercise, which she must take. Do not keep too many in one bunch and do not try to raise more hogs than you can give the proper attention. The ones that you do raise will yield a profit. There is no stock on the farm that is as profitable as the hog.

One acre of corn fed to the right kind of hogs will net more than two acres sold on the market. Follow this up for ten years and the hog will pay for two acres where the marketing of corn will pay for only one.

There is not a domesticated animal animal in existence so much misused in the manner of being cared for against the laws of nature, which are intended for his needs, as the hog.

The real progressive farmer has, by successful steps, reached his advanced position, while a new era of improvement is continually before us.

Changes of conditions are confronting us at all times. We have been increasing our aggregate yields

of foodstuff by occupying fresh lands that were in their natural condition. These are about exhausted, yet the population is increasing and the production of foodstuff must be increased to meet their wants.

Measures of economy, questions of feeding, of cheapening the feed, and of producing everything on a more profitable basis, are questions open for everyone to consider.

The different subjects are specialized that everyone may have a concentration of thought and effort to bring about the best possible conditions for the success of each undertaking is now the rule.

And in no branch of farming and stock raising was improvement more needed than in hogs, and considerable advancement has been made, but there is room for very much more, and it will unquestionably continue gathering momentum as time goes by.

Hog breeding is profitable and has been for many years. If it is not on your farm you better go into the condition carefully, and if you are not able to discover the reason for its being unprofitable, call in a neighbor who is successful and ask him to advise you what to do. He will, very gladly, we are sure.

PASTURE FOR PIGS AT WEANING.

If the pigs have been properly raised, they will already have been on pasture. However, the milk up to this time has constituted a part of their bulky feed. If the sow has been a good milker (and she is hardly worth while if she isn't), the supply of milk they have received has distended their stomachs considerably, aided, of course, by pasture and grain feeds. From weaning time on, pasture must be depended upon more largely to furnish the bulky part of the ration. There should be ready for them at weaning time the very tenderest and juiciest kind of clover or pasture plants. It is well to go over the pasture with the mower a couple of weeks before the pigs are weaned, in order to induce a fresh growth of clover. When the pasture is young and fresh, the pigs eat enough of it to satisfactorily distend their stomachs and keep them in thrifty condition.

GROUND LIMESTONE VS. BURNED LIME.

Appropos of the discussion of the comparative value of caustic lime and ground limestone, I contribute the following experience:

In 1906 a field of six acres was seeded to alfalfa after an application of 1,200 pounds of agricultural lime and inoculation. A good stand was secured over most of the field and five cuttings were made in 1907. After the third cutting in 1908 an alfalfa renovator—a tool highly recommended in the West, was used, but distinctly injured this crop. So much so that only two light cuttings were had in 1909 and re-

seeding became necessary.

On two-thirds of the field freshly burnt lime shell was applied—1,400 pounds to the acre—on the other third the same quantity of ground limestone.

The difference in the alfalfa at this writing is marked. Where the limestone was applied the growth is vigorous and should give a ton to the acre at the first cutting. The rest of the field will not average half a ton. The lime of demarcation is sharply defined.

I am inclined to believe that destruction of organic matter by the caustic lime is responsible for the difference, but no matter what the cause of the difference may be, the result is in favor of the limestone.

C. U. GRAVATT.

Caroline Co., Va.

This is of special interest just now as considerable inquiry is coming from New Jersey, where quite a little limestone is being experimented with.

MY EXPERIENCE WITH LIME.

In the spring of 1908 I bought 30 tons of lump lime, and aimed to put one ton per acre on the land. After the land was plowed it was laid off in rows 30 feet apart, then a half bushel of lime was put in the rows every 30 feet, so as to have the piles 30 x 30 feet all over the field. After it slacked it was scattered with shovels as evenly as we could do it. This was put on red land that was planted in corn (24 acres of it) and made a little over 35 bushels to the acre. I do not know that the lime helped the corn only in this way, the fodder was green after the shucks were brown, so it must have helped the corn to mature.

After the corn was cut the land was sowed in wheat, with about 200 pounds of acid phosphate, 14 per cent. to the acre. In March I sowed on the same land about a quart of the best clover seed I could get per acre. I ran over it a light harrow with the teeth set to slant backwards to keep it from tearing up too much wheat, and sowed the seed after the harrow.

The result was 280 bushels of good wheat. The crop was short owing to a dry, cool May, but a nice uniform stand of clover was secured. It made so much growth during the summer that I had to clip it in September to keep it from blooming.

Last summer was one of the driest we ever had. During the summer of 1908 I plowed and limed 23 acres and sowed it in winter oats in the fall, and clover seed in the spring just as I did on the wheat land. Made 27 bushels per acre. The dry, cool May injured them, but I got a fine stand of clover on the land, and it made such a good growth that I put our hogs on the clover after we got the oats out, and they did fine on it until November.

The same year I followed to acres of stubble land in July, then harrowed it several times in August, and limed it one ton to the acre. In September I sowed it to grass, using 4 quarts of timothy and 4 quarts of sapling clover seed per acre. The seed did not come up as well as I would have liked, owing to dry weather. While the grass was not very thick I got nearly two tons per acre of fine hay.

Last year I limed my corn land, 43 acres, and made 35 bushels per acre of fine corn, and the fodder kept green until late.

My neighbors corn was badly burned and all other corn that I saw in the fall.

Last fall I sowed my corn land in wheat, with 200 pounds acid phosphate, and have at this time a fine prospect for a good crop. For years before I commenced to use lime all the clover seed I sowed was thrown away as it was all gone before the next hay season. Timothy was nearly as bad. So it was a hard matter to get hay enough to carry my stock through the winters. Now I have a fine show for a good crop of clover hay on all the land that was seeded last year, except a small corner of a lot that was not limed.

Where the lime gave out there the clover stops too, only a bunch now and then on the part not limed. Now I have so much faith in lime that I hope to be able to continue to use it on my corn land each year until all the farm is limed, then clover will grow, and where clover grows well anyone can grow good crops of other kinds, but without clover and the other grasses on the farm, no one can make farming a success.

W. A. MARSHALL.
Albemarle Co., Va.

RECREATION.

This is the season when a few people whose homes are in the country and nearly all people whose homes are in the city, take a few days off for a change of scene and for a rest to gather strength for the remainder of the year. We say a few of the rural people and many of the city people because, from our observation, such is the case. The farmer of to-day realizes more than the farmer of 25 years ago that the privileges and rights of the city people belong to him, but there are still many who believe that from 300 to 355 days in the year belong to the daily grind of farm work. Many such have little patience with vacations. This belief is so strongly entrenched that one of the great churches of this country has taken steps to impress upon the farmers the need of giving to their young people occasional rest days and holidays.

Young people observe these privileges which are usually taken by city people, and that is one of the attractions which they look at when they think of city life.

The farmer lives in the open air which is what the city people usually choose when they take their recreation. This makes some farmers think that they are having what the city people consider a vacation. This is true, but rest is not simply loafing and allowing the muscles to rest, but in its highest and best sense is securing a change of scene, and a mental stimulus which will aid one to take up the ordinary daily labors with more vim and vigor.

Pennsylvania and New York offer so many magnificent curing opportunities that the farmer should see that his family is given the privilege of their enjoyment. All will return more tired possibly than on leaving home, but with greater appreciation of the home life and a determination to do better work.

The farm is the basis of all industry. For many years this country has made the mistake of unduly assisting manufacturing, commerce and other activities that center in the cities, at the expense of the farm.

Isolation, hard work and small com-

pensation is too often the lot of the farmers' wives. These are burdens that need lifting.

The greater the number of prosperous farmers, the greater will be the prosperity of every business man.

THE BUSINESS END OF FARMING.

One of our farmer friends who is full of practical ideas, suggests that farm papers harp too much on the importance of raising bigger yields of grain and do not pay enough attention to the importance of the business end of farming, such as preparing farm produce for market, and the judicious marketing of the same. If more attention was paid to these details, the

HOGS.

FOR SALE—Duroc and Poland China Registered stock bred sows. Service Boars \$13 to \$20, 40-lb. Pigs \$5. Also some choice Rhode Island Red chickens. WM. HARRISMAN, Thurmont, Md.

BARGAINS IN POLAND-CHINAS, BERKSHIRES and CHESTER WHITES
I now have a large stock of probably the best I ever owned. Cannot tell you all here, but I have Boars and sows, all breeds, 2 to 6 months old, mated not akin; sows bred and born ready for service. Guernsey Calves and Registered Scotch Collie Puppies. Write for prices and free circular. This stock must go and will be sold. M. B. TURKEYS, Barred and White P. Rocks, B. Leghorns and Beagle Dogs. P. F. HAMILTON, Cochranville, Pa.

FOR SALE—Some fine Yorkshire Pigs—no better stock in U. S. Just imported—new blood. A. A. BRADLEY, Frewsburg, N. Y.

MILCH GOATS.

MILCH GOATS—Information regarding this most profitable milk producing animal. Write G. H. WICKERSHAM, 1212 St. Francis Avenue, Wichita, Kansas.

POULTRY.

FOR SALE—Good honest stock eggs of Single Comb Brown Leghorns; finest strains, Cups and Blue Ribbon winners at Cumberland, Frostburg and Somerset. 600 fine large farm-raised birds for sale at reasonable prices. Twenty-five extra choice Light Brahma cockerels for sale. Write me. HERMAN SPOCKEY, Sand Patch, Pa.

MISCELLANEOUS.

HORSES going blind Barry Co., Iowa City, Ia., can cure.

TROTTER MARE for sale—a handsome, black, trotting mare, and beautiful stud colt, very fast. Second cousin to Dan Patch. Price \$200. P. J. WYAND, Cumberland, Md.

FOR SALE—Two litters Scotch Collie puppies, sired by the noted "Flying Comet" and "Liddle Boy," out of bitches bred in the purple; perfectly marked golden sable; strong, healthy, farm-raised stock. Prices from \$10 up. FRANK H. TAYLOR, Reidsville, Pa.

SEND 10c for a sample copy of the largest, newest, race-horse paper published. P. J. WYAND, Cumberland, Md.

FOR SALE—Pure bred Registered Holstein bull calf, Mostly white. Fine individual. Good pedigree. Write for pedigree, photograph and price. MADISON COOPER, 101 Court, Watertown, N. Y.

OUR FEATHERED FRIENDS

Conducted by George W. Miller.

impetus towards securing bigger yields of grain would follow as a matter of course.

More co-operation among farmers in the matter of selling similar grades of farm produce in the bulk rather than individual lots would bring better profits. Several farmers in the same neighborhood who could get together wheat, all of the same grade, and agree to market it on the same day, would be able to command a few cents more per bushel than if each should haul his grain separately. The same way with carload lots of grade cattle fit for shipping.

By bulking the same variety of potatoes a better price can be obtained than where the buyer will have to put good and bad potatoes all together and sell them as mixed potatoes.

In sections where a good deal of wool is raised, it would pay to hire a wool expert to grade the wool as it comes into the primary market, rather than to send it off to larger markets where it is sorted and sold in bulk according to quality. A good example of selling wool in bulk was announced in the daily papers a few days ago, where some 500,000 pounds of wool of uniform quality was marketed in Boston at a premium of three or four cents per pound, by a Wool Growers' Association at Belle Fourche, South Dakota.

If a company of farmers attempt bulking the articles they wish to sell they must be sure that everything is up to standard else they will have some difficulty in disposing of their products. An instance came under our notice where a farmer shipped a quantity of ungraded wool and had quite a difficulty in disposing of it. The company to whom he shipped the wool did not accept it. This farmer lost money because of a lack of good business methods. A word to the wise is sufficient.

INTEREST IN FARMING.

As an evidence of the general interest every person is taking in the new agriculture, the secular papers are devoting much space to farm topics for the benefit of their readers. Many of the large city dailies maintain special farm pages, throw in frequent editorials and give much space to crop news. The smaller papers are snatched with plate matter and many useful hints about farming can be gleaned from all these. It is the farm paper, however, that specializes and assembles kindred topics in an attractive form that has the best reception and the greater influence. Here helpful and reliable information can be found and in the advertising columns are displayed the latest and best hints about what and where to buy everything pertaining to the needs of the farm and co-ordinate activities.

A tiled hearth sometimes gets stained. In that case rub off the stains with paraffin and sand. This should be used instead of soap and water. To keep tiles in good condition they should be washed twice a week with a little paraffin and water.

"THE WYANDOTTES."

We are in receipt of a revised edition of a book entitled "The Wyandottes" published by the Reliable Poultry Journal, Quincy, Ill., and find that it is an authoritative text book and instructive treatise devoted to the different varieties of the Wyandottes, viz: Silver Laced, Golden, White, Buff, Black, Silver Penciled, Partridge and Columbian. The text and illustrations are based on the changes to appear in the 1910 American Standard of Perfection, and the book is invaluable to breeders of Wyandottes who wish to anticipate future Standard requirements. It was edited by J. H. Drevenstedt, a breeder and judge of twenty-five years experience.

"The Wyandottes" consists of 160 pages 8½ by 11½ printed on first-class paper and is bound in heavy paper with a handsome embossed cover design. It is fully illustrated by Franklans L. Sewell, A. C. Schilling, I. W. Burgess and others, and in addition to eight full-page latest type Wyandotte charts by Sewell, there are three Sewell color plates of Silver Laced, White and Partridge Wyandottes.

The price of "The Wyandottes" is \$1.00 per copy, postage prepaid.

PEDIGREES AND TRAP NESTS.

The idea of pedigreeing poultry, and knowing the history of each bird bred from, originated in the fertile brain of the Honorable Uncle Isaac K. Felch. Mr. Felch used cards for keeping history of each bird sold, telling all worth knowing of the ancestors. From this, with the introduction of the trap nest, came the advertising of egg records rather than

score cards, and with the advent of this change in poultry breeding, the stock not only became more hardy, but their utility qualities became more apparent.

About ten years ago, a man by the name of Silberstein, living in Framingham, Massachusetts, pedigreed his Light Brahmas. He invented a trap nest so that he would be able to tell the exact number of eggs each individual hen laid in a year, and also what hens gave the best fertilizing eggs, and what ones did not.

This seems like a fairy tale, but Mr. Silberstein was so emphatic in his declaration that he could tell just what his hens would do, that a neighbor of ours secured 28 eggs from him, he to pick out eggs laid by hens that were noted for producing fertile eggs. The eggs came. Five were laid by female No. 40; four by No. 48; three by No. 93; three by No. 14; four by No. 21; six by No. 95; three by No. 45. Along with the eggs came the pedigree, which informed the purchaser that pullet No. 40 was mated to a cockerel that scored 92, and weighed 12½ pounds. The pullet was hatched May 17, 1897, and weighed at the time the shipment of eggs was made, seven pounds and two ounces. She began laying November 19, 1897, and laid to that date (April 30) 119 eggs; average weight of each egg in grains, 860. The pullet scored 90. The pullet's dam had an egg record of 177, and weighed 6½ pounds. The pullet's sire weighed 10¾ pounds. The cockerel's dam laid 171 eggs and weighed 6 pounds, 2 ounces. The cockerel's sire weighed 10¾ pounds.

Pullet No. 40 laid six eggs in November; 14 in December; 22 in January; 22 in February; 30 in March;

and 25 in April. And so on the record went of the others.

The eggs were set—thirteen under a White Wyandotte pullet, and fifteen under a Brahma hen. The pullet hatched every egg. The Brahma set a week and then left her nest. She was replaced by a Plymouth Rock hen, and she gave up in another week. Then we placed the eggs in an incubator we had running at the time, and kept them there until they began to pip, when we handed them over to the White Wyandotte pullet to finish which she did in fine style. Every egg was fertile, and all but two hatched, they dying in the shell.

The work of Silberstein practically paved the way for the success of the trap nest, and to-day the best utility breeders of the country would no sooner think of abolishing the trap nest than they would the incubator for market poultry.

DUCKS.

A good feed for breeding ducks is equal parts corn meal and shorts with 10 per cent. beef scrap. If green food is not available, add one-fifth cooked vegetables two or three times a week. Also feed raw vegetables two or three times a week. Give plenty of green food if possible, as ducks are big eaters and unless you have abundance of green food such as alfalfa, your ducks will eat their heads off. They may be allowed to run together.

INCUBATOR HINTS.

1. Don't shake your incubator or the incubating eggs, as it ruptures the embryos and causes the chickens to die in the shell.
 2. Don't have dirty, oily lamps or short wicks that smell up the incubator room.
 3. Don't put the thermometer where the first chick that comes out of the shell will knock it down.
 4. Don't worry about the hatch on the last day. Just see that the temperature is O. K. and forget it.
 5. Don't use the incubator for a wash bench.
 6. Don't set the machine in the hen-house where vermin will get into it.
 7. Don't lend your machine. Let the other fellow invest in one also; it will do him good.
 8. Don't forget that the brooder must be ready for the chicks, so don't wait until the last moment before getting it cleaned and warmed up.
- When you take the eggs out of the machine to air, it does not mean to cool them; although they do cool in the airing. When the eggs are airing, the incubator door should be closed in order to keep the egg chamber warm. I often take an hour for eggs to reheat after being aired.

DO YOU MAKE MONEY?

Summer Care in the Poultry Yard.

The summer care of poultry is a subject of so little importance to many new poultry keepers, that they are very apt to neglect it. It seems as though the hot, scorching days fairly wilt the ambition of the otherwise wide-awake person, and much is "put off until tomorrow that should

have been done today."

Now it is just as important that the fowls feel comfortable in summer as it is aimed to have them in winter. Not only should they be fed regularly and watered, but partial shade should be provided in the runs, for the hot suns are depressing on the stock.

All foods of a heating nature—carbonaceous material—should be practically cut out of the bill of fare.

The houses should be freely ventilated at night—in fact, the stock should have open fronts to the houses that they may get full benefit of the pure, fresh air.

Not only is it necessary that fresh water be given, but care should be taken that the drinking vessels be kept in the coolest spot possible.

All this advice, to a veteran, is "an old story," but to the new aspirant—and there are many of them each year—it is valuable information. The importance of these small matters may not be apparent at first, but the longer one is engaged in poultry culture, the more does he see the necessity of strictly living up to these rules.

Especially are the months of July and August trying to the ardor of the poultry keeper. The hot suns make work a burden; the louse question calls for heroic action; the rusty look of the fowls about going into molt is an eye-sore; the egg crop is noted for its limitations; and the market price is almost discouraging. Are you a subject of the "blues?" That is the time when you are apt to get them.

But the enthusiastic, plucky, willing worker will plod along, knowing that the season will soon be here when the stock will look better, will do better, and when the prices for eggs and poultry will be a more tempting figure.

Green food is another important item. Short, tender grass, lettuce and radish leaves are not only relished, but the very best kind of greens to give. Of course, the best method is an arge over a good pasture, but poultrymen do not always have that advantage to give their fowls. There is more or less dry weather during the summer, and the runs not infrequently become baked and in heavy soils more or less filthy. The man who has the best interests of his stock at heart, will once a week use a hand plow in such yards and stir up the soil so as to make it loose and fresh. If he does this at night, the next morning the fowls will get at work, scratching, hunting worms, and stirring up things generally. It is wonderful how much they find in this turned up soil that furnishes them both amusement and food.

It should be the rule that nothing is thrown in the poultry runs that will not be eaten up quickly by the fowls. To make the runs a dumping place for slop, soon furnishes the stock with a lot of sour, tainted stuff that is sure to create sickness. We never believed in feeding sour slop to our pigs, and certainly would not to our poultry.

After breeding season, the wise poultrymen remove the male birds from the flocks. The eggs will keep much longer if not fertilized, and the hens will be able to shed their feathers better if not harassed by the males. I believe in separating the

Belle Brand Crushed Oyster Shells

Make Poultry PAY!

Tests show where these shells have been used—duration of test 22 days—number of eggs, 33; weight of eggs, 1489.6 grammes. Where Sharp Grits were fed—test 22 days—number of eggs, 6; weight of eggs, 257.6 grammes. This is convincing argument why every poultry house or yard should have them. They'll make hens lay an egg a day, with firm, hard shell—less liable to break in shipment.

Belle Brand Crushed Oyster Shells supply Carbonate of Lime in natural form and acts as a grit, making them superior to any other poultry food on the market. Write for Free Catalogue to **LOUIS GREBB, BALTIMORE, MD.**

sexes in July and not remating before the first of the following year. It means stronger, better and more vigorous stock.

Poultry that is well kept during the summer, will be in good condition for winter work. Broody hens will be more or less frequent during the heated term, and here I wish to caution about using harsh methods in breaking them up of this broodiness. This instinct, I believe, is nature's provision for giving rest to the hen, and the most humane methods should be employed to curtail that period. A good plan is to put all the broodies in a separate run and house in which there are no nests. Another plan is to place each bird in a separate cage. A week generally changes the hen's ideas, and she is ready to get down to work again.

A greasy oven, which makes everything cooked in it taste unpleasant, should be scraped with an old knife, and then swept out. Next, with an old whitewash brush or paint brush, brush over the inside of the oven with slaked lime and water, mixed into a paste. Then make the oven very hot and sweep it out when cold. It will then be quite sweet and clean.

\$350 a Month--500 Hens

Edgar Briggs did it! **BRIGGS**, the Thomas A. Edison of the Poultry World—the man who wrote "Profits in Poultry Keeping Solved"—fourth edition just now ready. No branch of mercantile business or farming pays the profit that poultry guarantees under the Briggs system.

Briggs' "Poultry Silo" discovery alone is now saving farmers and poultrymen thousands of dollars daily. He feeds his hens "poultry ensilage"—a processed feed that makes them lay regularly, even in winter, when egg prices are "out of sight." Briggs tells how to make the ensilage at not to exceed 15c per bushel.

Briggs' Book contains literally hundreds of secrets, making poultry raising for every one a profitable business or side line. **FEAST OF FACTS, \$1.00**—For a short time only we offer Briggs' Book "Profits in Poultry Keeping Solved"—100 pages, fully illustrated and nicely bound, including "Secrets in Poultry Culture"—the many secrets used by Briggs, and one year's subscription to "Poultry Success," the leading monthly poultry journal. If you have never read it, borrow a copy from your neighbors, or write for samples. **ALL THIS ABOVE ONLY \$1.** Write to-day.

THESE SICKLY-LOOKING CHICKS NOT FED OUR WAY

They wouldn't be wilted, forlorn and droopy as are these poor little fellows. What's the matter? Likely some one has been feeding a lot of table scraps, or sour bread, or some other indigestible mixture that is fermenting in their stomachs. Tomorrow the owner will find eight or ten dead, and wonder: "What killed my chicks?" Chicks are babies and must have baby food. That's why **Puritan Chick Food** is so successful in rearing chicks, keeping them well and holding down the death-rate. It just "fits" the interior mechanism of the digestive organs of a chick.

Puritan Chick Food (The Safe Kind)

has a delightful taste and odor to a little chick, because it is compounded of those very pure, wholesome and sweet elements that naturally attract it. Your little "puff-balls" will make things fly scratching; they are always happy and busy, when fed on it. Some of the largest poultry plants use **Puritan Chick Food**. It pays them. It will pay you, no matter how small your flock. It is foresight, wisdom, economy and profit, for you always to keep it on hand. It's true life insurance for your chicks, all other things being equal. We guarantee it so, and refund money if you're not satisfied. No fussing about it, either—your word is final. **Puritan Chick Food** is put up in 5-lb. boxes for 25c; 25-lb. bags \$1.00; 50-lb. bags \$1.75; 100-lb. bags \$3.25. Ask your dealer for it. If he hasn't it we'll supply you. Booklet free. Write now for it.

Puritan Poultry Food Mfg. Co., Bound Brook, New Jersey



WORTH READING

REMEDIES FOR HIGH PRICES.

Prosecutor of the Beef Packers Tells What He Would Do.

Prosecutor of the Pleas Pierre P. Garven, Republican, of Hudson county, New Jersey, who conducted the cold storage investigation before the Grand Jury for the December term, drawn by Sheriff James J. Kelly, Democrat, which resulted in the indictment of twenty-one beef packers as individuals and six companies as corporations for conspiring by cold storage methods to corner foodstuffs and increase prices, made a speech at the Grand Jury's windup dinner, in which he said that if those responsible for the present meat monopoly were sent to jail; if cold storage houses were regulated by law; and if the tariff was taken off beef, the present high prices of meats would take a big tumble.

Prosecutor Garven said in part: The result of my investigation has convinced me there are three prime causes for the present high prices of meats and kindred products:

1. A monopoly, which can be broken up by vigorous and strict enforcement of the law.

2. The present method of using cold storage to control and keep out of the market at the will of the monopolists meats, poultry and eggs. This can be remedied by proper regulation by law of the uses of cold storage.

3. The tariff, with a duty of a cent and a half a pound on cattle, roughly amounting to about \$15 a head. This keeps out of the markets of this country the great supply of cattle from the Argentine Republic, Canada and Mexico, which would otherwise be available. This tariff also aids in holding and maintaining a monopoly.

The remedy for the tariff suggests itself. That is, let the Congress take the tariff off cattle coming from foreign countries. This would compel the big packers of Chicago to compete with the world. I do not mean by this last statement to abandon my position as a protectionist. I believe in protection only when it is used to protect our labor and industry, but when it is used as a club to beat and oppress the people of the country I am unalterably against it.

I am not a prophet, but I venture to say that if the men who created and now maintain the meat monopoly were tried, convicted and sentenced to imprisonment and if the cold storage houses were properly regulated by law and the tariff altered so as to make possible the use of the foreign beef exactly the present high prices would fall to such an extent that it would not be a burden to support one's self and family upon the ordinary income as it is to-day.

SOME INFORMATION FOR MR. TAFT.

While the United States Post-Office authorities are floundering in the deficit and striving as usual to place the blame on second-class matter, with some help from President Taft's re-

marks about "subsidies" to publishers, the report of Rodolphe Lemieux, Postmaster-General of Canada, is at hand with some very illuminating facts.

Canada is a country of small population and great distance. For the fiscal year ending March 31, 1909, the mail-carrying mileage of the Dominion increased 1,312,073 miles. The first-class matter grew in volume over 4 per cent. The expenditure, owing to expansion of service, increased \$586,456.66 as compared with the previous year. In August, 1908, the drop-letter rate for cities having a carrier service was reduced from two cents per ounce to one cent. The second-class rate of one-half cent per pound for regular weekly and monthly publications which required to be transmitted more than 300 miles was abolished, together with the zone restriction, and they are now despatched to any part of Canada for one-quarter of a cent a pound, or one-fourth the United States rate, while the free area for publications has been extended from a radius of twenty miles to forty. It is surely as far from Montreal, Canada, to Vancouver or the Klondike as it is from New York to San Francisco or Seattle.

The Canadian Post-Office surplus for the year was \$800,237.53.

Unfortunately the Washington Government seems to think it necessary to pay the railroads such outlandish figures for transportation that the millions of "ordinary" citizens must foot the bill and be thankful they are permitted to live.

I H C SERVICE BUREAU.

Whoever wants to know may ask and receive the freshest and most accurate information through the I H C Service Bureau, recently established by the International Harvester Company of America.

Not only is the bureau designed to assist the farmer in a solution of his many and varied problems, by answering directly questions regarding soils, fertilizers, rotation of crops, climatic conditions, irrigation, etc., but the aim is to give assistance to students of agriculture, to the agricultural trade, and general press, and to carry on a wide and popular campaign of education.

To do this experts have been en-

gaged—men who have made a study of agriculture, fruit raising, dairying, animal husbandry, etc. They will co-operate with the United States Department of Agriculture, the Government Experiment Stations, and the agricultural colleges, and in addition will devote time to study and research along independent lines, thus making the bureau a center for the latest and most scientific information on any subject that directly or indirectly relates to agriculture.

News and agriculture data will be furnished the press and special articles will be prepared upon request of editors. Photographs of machines and agricultural products may be had for the asking. In short, editors, teachers, farmers, and others will find the bureau ready and willing to answer any and all questions promptly and without charge.

Schools and agricultural colleges will be loaned lantern slides, as heretofore; but this service has been greatly enlarged and made more complete.

Illustrated lectures, presented by interesting lecturers, on subjects of general agricultural interest, are now being offered state and county fairs, land shows, farmers' institutes, teachers' institutes, Granges, Chautauquas, etc.

The only cheap thing about these lectures is the price. They are free. Beautiful colored slides and moving pictures have been made specially for the lectures, and no expense has been spared to make them as complete and entertaining as those for which a fee is charged.

The world is interested in agriculture as never before, for the reason that feeding the population is the paramount issue of the age. The struggle for enough to eat had no relief until the invention of the McCormick reaper in 1831. From that time dates all modern progress—the railroads, the telephone, the large cities, the comforts and the luxuries of life.

In the seventy-odd years that the world has had the reaper the world's population has doubled several times.

Seed for Footlet Horse Trainers
DEATH TO HEAVES
Newton's Horse Trainers
Guaranteed or Money Back.
\$1.00 per head, dealers, or
Express Paid, 15 1/2c each.
THE NEWTON REEVE CO.
Toledo, Ohio.

Elkhart Buggies
are the best made, best grade and easiest riding buggies on earth for the money.

FOR THIRTY-SEVEN YEARS
we have been selling direct and are The Largest Manufacturers in the World.

Save **\$30**

May We Send You Our Large Catalogue?
Elkhart Carriage & Harness Mfg. Co.
Elkhart, Indiana



These two factors have increased the number of farms and the number of acres farmed. And these have raised agriculture to a science, which, in turn, has made the farmer prosperous, and he has brought prosperity to all the people.

To further increase this prosperity is the idea the International Harvester Company of America had in mind when it established the I H C Service Bureau. It wants to see more acres under cultivation and more bushels per acre raised. This can be done only through education, experimentation, and scientific analysis and research.

In contributing this service to the cause of agriculture the International Harvester Company of America hopes to pay a small part of the long overdue debt every man owes to the inventor of the reaper, who was the real founder of the farm machine industry—the father of modern progress.

103,798 CROSS THE BORDER.

Emigration from United States to Canada Double That of 1908.

During the fiscal year just ended 103,798 immigrants from the United States settled in Canada. This is practically half of the total immigration into this country during the year, which was 208,974. It is also nearly double the number which came the previous year, when 59,832 crossed the border into the Dominion.

The total immigration into Canada during March, of 33,065 persons, was the largest for any single month in the history of Canadian immigration.—Canadian Report.

A grower in southern Kansas who harvests about one thousand tons of alfalfa per year, and is working with it nearly every day from the second week in May until November 10, insists that alfalfa, under the same conditions of rainfall, is much easier to save in fair feeding condition than red clover. He finds the side-delivery rake especially excellent for turning over the green or wet windrows to the sun and air with the least loss of leaves, and cured thus, after being wet, the natural color is better preserved. "That alfalfa hay has a higher feeding value than almost any other, even when saved under the most favorable circumstances, should be impressed upon the inexperienced."—From Coburn's "The Book of Alfalfa."

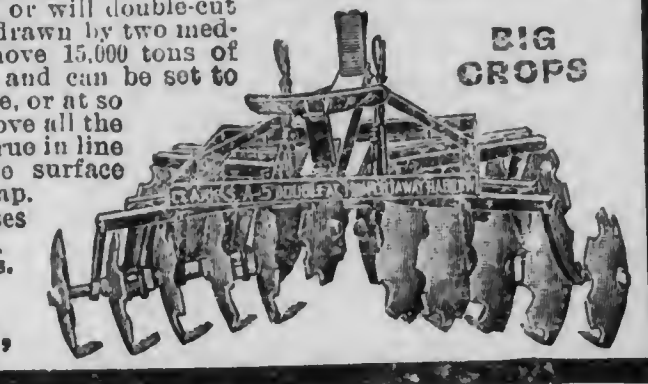
RAPE ON THE FARM.

Is one of the very cheapest foods that can be grown. Sown in the corn at the last cultivation is one of the very surest ways of having a lot of fall pasture providing the moisture is ample and the corn does not too completely shade the ground. Even when this is the case, after the corn is cut up or the leaves shrink in the fall, the rape will come on and sometimes make remarkable growth just when most needed. If sown in grain fields that are not overly thick, after the grain is well up, but not so large that a light dragging will injure it, it will sometimes come on and make excellent fall pasture for hogs and sheep. In any case it makes a lot of humus when turned under before frost. We

CLARK'S CUTAWAY TOOLS

DOUBLE ACTION "CUTAWAY" HARROW
WITH JOINTED POLE. It is made especially for every day work. It will increase your crops 25 to 50 per cent. This machine will cut from 28 to 30 acres, or will double-cut 15 acres in a day. It is drawn by two medium horses. It will move 15,000 tons of earth one foot in a day, and can be set to move the earth but little, or at so great an angle as to move all the earth one foot. Runs true in line of draft and keeps the surface true. All other disk harrows have to run in half lap. The Jointed Pole Takes All the Weight Off the Horses' Necks, and keeps their heels away from the disks. We make 120 sizes and styles of Disk Harrows. Every machine fully warranted. Send for FREE Booklet with full particulars.

CUTAWAY HARROW COMPANY,
Main St., HICCANUM, CONN.



have grown it with very good success sown right with the oats and barley. Sometimes when the ground is very rich and the season moist, rape, if sown with small grain, will grow so rank as to injure it. We had this to occur but once, and that was with barley. Perhaps the safest way on this kind of soil is to sow after the grain is well started, and harrow lightly. If the season proves pretty dry, however, this way is apt to make a rather light rape yield.

Four pounds of Dwarf Essex rape seed per acre is ample if sown evenly. No other kind will do, nor should it be accepted whatever the dealer may advise. Get the Dwarf or do not get any. All No. 1 seed houses may be relied upon to furnish this.

If one is scattering a little rape seed on summer-fallow or breaking, it is well to mix a little good turnip seed with it. Some seasons the turnips will not amount to much, but if they do not, the seed has cost little, and now and then a season will bring out an enormous yield. When the turnips and rape do well, it is astonishing what an amount of hog and sheep pasture such a field will afford. If pulled and thrown to cows after milking, this mixture will not taint the milk and seldom bloat, but cattle must be turned into standing rape very carefully, or bloat will result. Some have great difficulty with bloat when sheep on rape, and when first turned on, they should be watched carefully.—M. F. Greeley.

AFTER HARVEST CULTIVATION NEEDED ON EVERY FARM.

Increases Moisture Content—Kills Weeds—Keeps Land in Good Condition.

After harvest cultivation is one of the secrets of successful farming. It pulverizes the soil, conserves moisture and kills weeds. On every well arranged farm some kind of rotation of crops, including a hard crop, is carried on, in such cases the grain crops follow the cultivated crop and therefore the soil will naturally receive thorough cultivation during the summer and autumn.

The root crop has to be provided for. Its place in the rotation is to follow pasture or meadow. This crop requires the same cultivation as most other crops grown on farms where no systematic system is carried on, that is to break up the soil immediately after the hay and grain crops are removed.

When all other implements fail, the plow has to be brought into use. The two furrow plow is the most use-

ful where there are no stones to trouble. The disc harrow is also useful on stubble and especially after the sod has been turned.

The Cultivator.

Of cultivators there are two kinds, the rigid foot and the spring tooth. Each has a useful place in the field. In most cases the cultivator is preferable even on the sod fields. During August, it is best to work the surface very shallow, gradually working deeper, the object being to get all growth broken up and brought to the surface where it will dry out in the scorching sun much quicker than by rotting, if turned under. In using the cultivator, go over the field once, then with the harrows and keep going alternately until you have a perfect job. In cultivating grain stubble it may be found necessary to remove some of the teeth or change them, to allow the stubble to pass through.

Two Furrow Plow.

If there are no stones to hinder and the soil is not too hard, turn a furrow about two or three inches deep, then roll the sod in order to pack it. Harrow or disc harrow to fill up the crevices and hasten the rotting. In about two weeks' time out on the disc again. Go over the field a sufficient number of times to cut all the sod and make a smooth surface. In a few days' time put on the broad shouldered cultivator and keep this going at intervals until autumn, when the land should be thoroughly plowed. If the single walking plow has to be used, work the land the same as with the gang-plow.

Conserves Moisture.

One of the most important objects in cultivating after harvest is the conservation of moisture. The soil that is thoroughly cultivated immediately after harvest will hold moisture very much better than either fall or spring plowed land for next season's crop. We also make the soil in better condition for bacterial life, which has the power of converting inert matter into available plant food. Cultivation allows the air to pass through the soil, which makes conditions more favorable for the development of bacterial life and enables them to convert the unavailable plant food into available food for plants.

All grain crops, such as wheat, oats,

Used 24 Years. Doing Wonders.

San Marcos, Cal., Sept. 9, '09.
DR. B. J. KENDALL CO.
Dear Sirs:—I have used your Kendall's Spavin Cure and Flint's Condition Powders for twenty-four years and they are doing wonders. Please send me your Treatise on the Horse. Yours truly,

F. O. Enger.

HOME BEAUTIFUL

Conducted by George Middleton Fisher

THE HOME.

barley or peas cannot be cultivated more than once while growing. It is then extremely important that the soil for these crops should receive thorough cultivation during the previous summer. The earlier the land can be worked after the crop has been removed the better. All land that is intended for spring grains should be thoroughly plowed during the autumn and left in the best possible shape to receive all the pulverizing influences of the winter frosts. The following spring time the cultivator and smoothing harrow will be all that are necessary to make a perfect seed bed.

SOME PRESERVING DON'TS.

Don't make a mistake and wait until the special fruit in season is nearly over and then pay the highest price for it.

Don't think over-ripe, soft fruit makes good preserves or jellies. Don't ever use anything but the best materials for good results.

Don't use what is called "A" or "soft" white sugar or brown; use granulated white sugar for all preserves or jellies.

Don't use granulated white sugar for spiced fruit; use light brown only.

Don't make spiced fruit too sweet; seven pounds of light brown sugar to seven pounds of fruit is a good proportion.

Don't use an over-abundance of spices; too much makes it taste bitter. Don't cover preserves or jellies while cooking; they are apt to boil over.

Don't use cold sugar for jellies; measure the strained fruit juice; to each pint allow one pound of the best granulated sugar; put it on a platter in a warm oven to heat, and add it to the boiling liquid.

Don't put hot preserves in cold glasses or jars and not expect accidents; have the glasses or jars in scalding water, rinse well, then fill as quickly as possible.

Don't allow preserves to stand about after they are cold; put melted paraffin on cover with lids, wash off every trace of stickiness, and put in a cool, dark, dry place for future use.

Don't expect to make good preserves "hit or miss;" they require great care combined with the best to insure success.

Don't let them cook without stirring, even when the fire is slow.

Don't cook preserves on a gas-range without an asbestos mat.

Don't use a thin agate sauce pan; an old-fashioned porcelain-lined iron preserving kettle is best.

LADIES WANTED

TO PURCHASE their groceries, soaps, etc., by our Factory-to-Family plan. We give full value for your money and in addition the same value in premiums. We are also making a SPECIAL OFFER OF FIVE EXTRA CERTIFICATES to secretaries of Club-of-ten. Write for free catalogue. Pap-Worth Premium Co., 612 St. Marks Ave., Syracuse, N. Y.

A man can build a mansion, And furnish it throughout; A man can build a palace, With lofty walls and stout; A man can build a temple, With high and spacious dome; But no man in the world can build That precious thing called Home. So 'tis a happy faculty, Of woman far and wide, To turn a cot or palace, Into something else beside, Where brothers, sons and husbands tired, With willing footsteps come A place of rest, where love abounds That precious thing called Home.

WISE PROCRASTINATION.

There was a precious copy-book maxim which we once wrote in a fair round hand, to the effect that procrastination is the thief of time. The statement is undoubtedly true, in the case of the constitutional idler, who allows the golden moments to be stolen from him without a thought of how they are being carried off. But there is another kind of "putting off," which is the better part of living. There are many women who die martyrs to a system. They have arranged to do certain work and they "will" do it, rain or shine, whether sickness or health be the condition of the doer. "I had a friend who set out to work off the grudge," said a speaker at the annual convention of the Women's Institutes, "and I attended her funeral before she had been trying that course many weeks."

Do not make the mistake of thinking it heroic, not to take health and strength into consideration. A short rest or a holiday may indefinitely postpone the funeral.

COOKING BEEF HEARTS.

Get two fresh beef hearts cut in quarters. Wash carefully but do not remove fat. Put in pot or stewpan and cover with boiling water, season with salt and black pepper, boil steadily until tender. Serve hot with catsup or hot pepper-sauce.

Take the remainder, cut in nice thin slices, place in a pan (not tin or iron), add one-half cupful of sugar, one teaspoonful of mustard seed, a pinch of black pepper, and cover with vinegar weakened (if strong) with water. Place over hot fire and boil briskly for five minutes. Can in good glass fruit jars and put in a cool dark place; it will keep a year.

When you have used the meat leave the vinegar in the jar in a cool place, also add one-quarter cupful of good vinegar, let stand for some length of time, when a thick scum will form.

Now if you have any fruit juices or candied jellies or canned fruit that has started to ferment, mix with water (not boiled—soft water is best), put in glass fruit jar or stone crock placed in a warm room; add the scum from the vinegar left in the fruit jar, and you will soon have good vinegar which you can use as mother or start over and over again.

I have made gallons of the best vinegar in this way. You can also use sweetened water instead or with the fruit juices.

When boiling hearts, as it takes usually about three hours, one can steam a pudding, or corn bread, potatoes or vegetables over the pot or pan to save fuel.—The Delineator.

RECIPES WORTH KEEPING.

Beet Soup.—Chop three cooked beets while hot, and simmer in one quart of rich milk for twenty minutes; season with salt and pepper, thicken slightly with flour, and strain. Served in cups with whipped cream, it is most delicious, although it may be served in the ordinary soup plates without the cream.

Woodford Pudding.—Three eggs, one tablespoonful of sugar, one-half cupful of butter, one-half cupful of flour, one teaspoonful of soda dissolved in four teaspoonfuls of sour milk, one cupful of strawberry jam or preserves. Bake one-half hour in moderate oven. Serve with following sauce. One tablespoonful of corn-starch, one-half cupful of sugar, one tablespoonful of butter, one pint of boiling water. Cook until clear.

"BIBLE STUDY IN INDIA."

Following his article in the May "Century" on "College Men and the Bible" in America, Mr. Clayton Sedgwick Cooper has written for the June "Century" of the present remarkable conditions of "Bible Study in India." Mr. Cooper, who is a secretary of the international committee in special charge of Bible work in educational institutions, finds, among other facts of great and vital interest, that the English Bible is being more faithfully read by the students of Hindustan than any of the sacred Vedas, and that this Bible study is surely, though slowly, undermining the great oligarchic caste influence.

Don't think you can hurry preserves; it is out of the question to do so and yet have them perfect.

Don't forget to rub the bottom of the preserving kettle freely with olive oil to prevent sticking.

Paint Without Oil

Remarkable Discovery That Cuts Down the Cost of Paint Seventy-Five Per Cent.

A Free Trial Package is Mailed to Everyone Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powderpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much.

Write to Mr. A. L. Rice, Manufacturer, 47 North St., Adams, N. Y., and he will send you a free trial package, also color card and full information showing you how you can save a good many dollars. Write to-day.

PERCHERON SOCIETY APPOINTS AN IMPORT INSPECTOR IN UNITED STATES.

The Percheron Horse Society of America urged upon the federal authorities in Washington the necessity of a check list so that the registration of horses could be compared as they came to the United States. Last month they asked that the Government provide an inspector to see that the horses which were being imported were the horses which were described in the pedigrees. This the government did not do, and the society has undertaken the task at its own expense. It is hoped that this will result in the doing away with a lot of the "red tape" which exists in the registration of imported stock.

Then the veterinary inspection which is the rule in many of the states is misunderstood by many. As the law stands now, a veterinary in one state may pass a stallion as sound in health and fit for service, and two months or less a veterinarian in another state may declare the stallion unfit for service. An effort is being made to do away with this state of affairs. The Percheron breeders are anxious to conform with the regulations in the different states, but are trying to get these regulations more uniform. After October next the fees for registering imported stock in the Percheron society will be increased. This is being done so that the society will have more funds and also because it will stimulate importers to bring across the water nothing but the best. The address of the secretary is, Mr. Wayne Dinsmore, Union Stock Yards, Chicago, Ill., and any information asked from his office will be gladly furnished.

AUTOMOBILES ON THE FARM.

Close observers of the trend of automobile industry cannot have failed to note the increasing importance which is coming to attach to the motor-driven vehicle as a commercial and farm appliance. Some of the great automobile manufacturing companies now recognize the rapidly growing importance of this branch of the industry and are shaping their plans accordingly.

It would be well within the province of the forthcoming conference on agricultural conditions in New York state to take this factor of motor farm and commercial road vehicles into serious consideration. It is a notorious fact that the imperfect roads and animal-drawn vehicles have so seriously handicapped the farmers of many localities in marketing their products as to reduce the profits of their labor to the vanishing point in some seasons.

New York has planned to do much for its highways. That the improvement will greatly benefit owners of automobiles who use them for purposes of pleasure, travel and ordinary business need not be said. If in addition of improved highways the New York state farmer can be supplied with a serviceable, comparatively cheap, slow-going business wagon, the necessity for conferences looking to the improvement of agricultural con-

CACTI FREE.

10 specimens free with each \$25 order. Dealers take notice—order at once.

Mrs. S. I. Pattison,

Wholesale Collector Cacti, Mesilla Park, New Mexico.

A SICK PULLET.

conditions and the more complete utilization of farm lands in this state will soon disappear.

Practically, until recently, all the energies of the automobile makers have been directed to the manufacture of fleet, high-priced and more or less luxurious pleasure and racing cars. The change came with the demand for heavy motor-driven trucks for urban business traffic. The next logical step in the evolution will be the more simple farm vehicle; and the fortunate makers of an acceptable vehicle of that type will find themselves interested in the market for diamonds and rubies.

One evening at feeding time we noticed a pullet having a violent spell of coughing, after which she breathed very heavily. Upon examination it was discovered that the throat was irritated and the crop full of undigested food. Placing her in a separate coop we gave the fowl a teaspoonful of glycerine, to which we added three drops of a family liniment. The next morning she was all right again, and never after showed similar symptoms of ailment.

Too many breeders would have chopped her head off.



Investigate The Record of The Spreader You Buy

BEFORE you buy a manure spreader, find out what it has done for other farmers. That is the best proof of what it will do for you. Investigate carefully, and you will find that in the matter of service rendered, there are three machines that rank high above all others. These are the—

I H C Spreaders

Cloverleaf Corn King Kemp 20th Century

They have proved their value in actual use in the hands of hundreds of satisfied farmers. Choose one of these machines, and you will be sure of getting the full value of your manure by spreading it in the most economical and efficient way.

Here are a few "reasons why."

The mechanism which transmits the power from the axle to operate the apron and beater on I H C spreaders is simple and efficient. It requires little power to operate—does not get out of order.

The beater is strong and positive in its action. It thoroughly pulverizes the manure and distributes it evenly. It can be quickly regulated to spread manure as thickly or as thinly as desired. This adjustment can be made from the driver's seat while the spreader is in operation.

The wood in I H C spreader frames is hard, resinous, non-porous, very regular and narrow ringed. It is air-dried so that the sap is retained—cementing the wood fibres together. This prevents manure liquids from penetrating it and makes it proof against the action of the acids in the manure.

Wide-tired wheels and roller-bearings insure light draft, making I H C spreaders easy on the horses.

Cloverleaf spreaders have endless aprons. Corn King and Kemp 20th Century spreaders are of the return apron type. All can be furnished on special order with lime hoods for spreading commercial fertilizers, and drilling attachments for distributing manure in rows. All three styles are made in several sizes, so, when you choose from the I H C line, you are sure of getting just the machine that will meet your needs.

Call on the I H C local dealer and go over the matter with him, or, if you prefer, write direct for catalogue and full information.

INTERNATIONAL HARVESTER COMPANY OF AMERICA

(Incorporated) Chicago U S A



ODDS AND ENDS OF INTEREST TO OUR PEOPLE.

CHOLERA NO RESPECTER OF BREEDS

The Mule-Footed Hogs have been claimed by some breeders to be cholera-proof, to popularize them and draw customers by asserting that they were not subject to this disease.

Claims of this character have been made in the past for other breeds of swine. A few years ago an Ohio firm advertised widely that they had a breed of Chester Whites that were cholera-proof; later on, they sold with the animals certain powders for the protection of their hogs from cholera; but when exposed to the disease, they yielded, suffered and died, and they were compelled to cut out all matter claiming them to be cholera-proof, yet there were hundreds of people who bought the animals on the strength of their claims.

The latest effort by some breeders to introduce their breed and secure purchasers on the strength of being cholera-proof, are breeders of the Mule-Foot Hogs. We have noticed where some of them have stated that they had owned their hogs for several years and no cholera had ever been known in their herd. This is not conclusive of their being proof against the disease, as thousands of herds of Poland-Chinas, Berkshires, Duroc-Jerseys, Chester Whites, Yorkshires and others can make the same claim. Nor is it evidence that they will not contract the disease when exposed to it. It is not reasonable to believe that one breed has any advan-

tage over another, in protection against cholera, when they are exposed to it. A hog of weakened constitution or unthriftiness, or improperly fed is more liable to take disease than one that is in splendid condition, strong vigor and good constitution, such is able by nature to resist and throw off disease with more force.

The Mule-Foot Hog is officially proclaimed subject to contract cholera, just the same as any other breed of hogs. He is therefore not cholera-proof. It would be dishonorable for any breeder to advertise them as such with this official proclamation as a warning to all, of the real qualities of the Mule-Footed Hogs, on this particular point. Dr. Peters, of Illinois, and Dr. Craig, of Indiana, two well-known, capable and skillful veterinary surgeons of the highest reputation, each of whom has shown conclusively, by exposing the Mule-Footed Hogs to the disease of cholera, from which they all died.

The breeders of swine owe a vote of thanks to these veterinary surgeons for their test and proclamation of the truth, thus correcting the false assertions, made, perhaps in most cases, honestly by those believing in them. The Mule-Footed Hog may be a very valuable hog; but he cannot claim it as one of his virtues that he is cholera-proof.

"The truth is, no one man can say he had more to do with the formation of the Poland-China breed than another. It was the result of the labors of many. It grew out of the introduction of the China hogs by the Shakers of Union Village, Ohio, their crossing with the Russian Byfield, and the subsequent crossing with the Berkshires and with the Irish Graziers. After 1841 or 1842, these breeds ceased to exist in either Butler or Warren counties and have had nothing whatever to do with the Poland-China breed for the last 34 years." Controversies as to the precise crosses and by whom and under what particular circumstances they were made, prior to the middle of the last century, to form the breed, may interest a few; but what is vastly more important to the practical swine breeder is the fact that there was produced a race of swine now bearing the name of Poland-China that has been able to hold its own for three-fifths of a century as the most popular and most widely distributed pork-making machine in the foremost pork-producing region of the world.—From Coburn's "Swine in America."

Two of our cockerels got into a tussle, and both being strong, vigorous fellows, there was a lively time until we appeared upon the scene. When we did one of the birds had its comb and wattles badly torn. We at once washed off the blood, using warm water, and then heavily coated every part of the sores with carbolic vaseline. In addition, we gave a teaspoonful of whiskey water—one-fourth whiskey and three-fourths water. It saved the bird from catching cold, and the wounds healed nicely.

Don't expect preserves to cook over a hot fire and not expect them to stick and scorch.

BLOODED STOCK for August.



Time Has Told

You don't need to experiment on a remedy for Spavin, Kingbone, Curb, Splint, Capped Hock, Swollen Joints, or any lameness of horse or man.

Kendall's Spavin Cure has been the unfailing remedy for 40 years. Silver Creek, N. Y., Apr. 8, 1909. Dr. B. J. Kendall Co., Enosburg Falls, Vt.

I have used Kendall's Spavin Cure for the last 15 years, and it never has failed to do all that is claimed for it. Would not be without it. C. A. Dahlman.

\$1 a bottle, 6 for \$5. At all drug stores. Ask for free book, "Treatise on the Horse," or write to—DR. B. J. KENDALL CO., ENOSBURG FALLS, VT.

It was once thought that hens would become broody before pullets, and furthermore, that overfat inclined hens to broodiness. Both of these theories have since been exploded. Every year, on the farm of the writer, the pullets are the first to show signs of broodiness (evidently on account of their early and heavy laying) and the very fat hens (the older they grow the more they are apt to get too fat) are the last to think of raising a family.

SAVE HALF THE LABOR

In sawing wood. You can do this and at the same time, cut more wood in a given time than in any other way by using



The IRELAND WOOD SAWING MACHINE

Table is mounted on grooved rolls, moves easily—cut of saw is down instead of against the operator as in old style machines. Must be seen to be appreciated. We also manufacture Drag Saws, Saw and Shingle Mills.

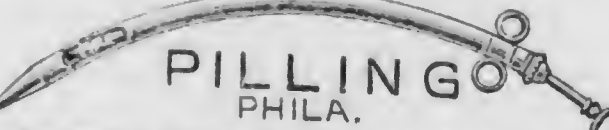
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Warranted the most practical machine made. One man can lift 20 tons. Made in 3 styles, 10 sizes. Screw, Cable and Hand Power. We manufacture a **TIE DITCHER** and best **CORN HARVESTER** ever made. Cuts two rows with one horse. AGT's wanted. Write for catalog. Box 22, H. L. Bennett & Co., Westerville, Ohio.

I Make the Best Scale on Earth

And I can prove it. Forty-five years ago I commenced selling scales to the user setting in return until he had found that my scale was exactly as represented. I have patented the only reliable **PITLESS STOCK SCALE**, complete with steel frame, compound beam and beam box without extra charge, sold at a fair price. My scale is not cheapest, but **BEST**. I will send you full information, a scale on approval or break, "Reasons for Owning a Scale" if you address "JULIUS H. PAYS THE FREIGHT," 105 C St., BINGHAMTON, N. Y.



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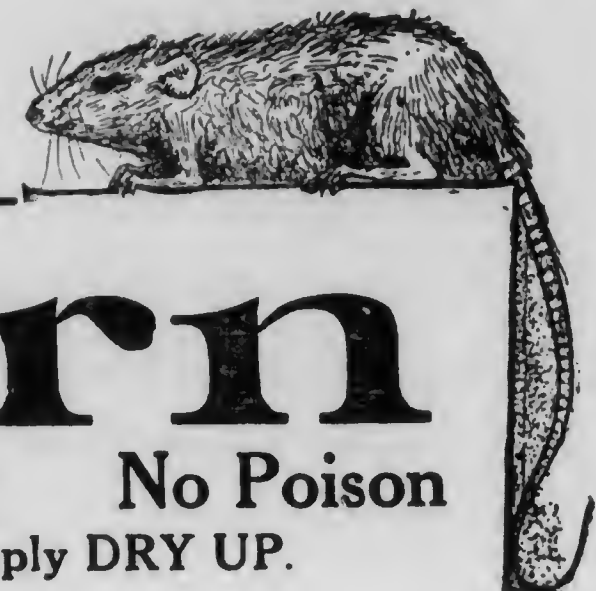
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Artificial Impregnators are "Easy to Use." Write for pamphlet.

GEO. P. PILLING & SON CO.,
Philadelphia, Pa.

BLOODED STOCK for August.

The destructive pest before eating Rat Corn



Rat Corn

No Odors or Smells KILLS RATS AND MICE No Poison

It mummifies them. No matter where they die, they simply DRY UP.

Positively do not smell.

Will not kill cats, dogs or man.

Rat Corn is a new and scientific discovery, and without doubt the greatest rat destroyer in the world; the only one that kills rats without any bad, dangerous or disagreeable effects. A trial will convince you.

25 Cents, 50 Cents and \$1.00 Per Can.

Ask your dealer or sent by mail on receipt of price. Send for booklet

"HOW TO DESTROY RATS" Free. Made only by

BOTANICAL MANUFACTURING CO.

255 South 4th St., Philadelphia, Pa.

PHILADELPHIA, Pa., October 23, 1909.

Botanical Manufacturing Co.

Gentlemen: We desire to say your method of killing rats is a success with us. We rarely ever see one at all, whereas before we had them in droves. If anyone troubled with rats will call, 'phone or write to us we will be glad to give them our experience.

V. Clad & Sons (Signed) Louis A. Clad
12th and Locust Sts.



After eating Rat Corn he is mummified

UNDUE CANDOR AT HOME.

I remember to have met in my girlhood a family with whom old-school courtesy was so perfect that a fine flavor of ceremony distinguished the intercourse of all its members. They were uniformly polite to one another, invariably decorous and constantly on guard lest by an accident they might trespass the rules of a flawless courtliness. "What a strain it must be to live with the W's," a schoolmate of mine exclaimed, after we had spent the day together in their hospitable home. "I felt," she added, "while I was there, as if I were walking through a mine with John Hancock and Dorothy Q." Possibly, my friends, the W's, carried too far this determination to be always and wholly polite, and possibly now and then their demeanor may have seemed a trifle self-conscious and a little stiff, but if they erred it was in the right direction. Most of us go to the opposite point and keep our good manners for outside friends, while we are as rude as we please to the people at home. We do not hesitate in the least to say to Aunt Marie, who comes down in the morning with her hair hastily arranged, "Dear me! you look like a positively fright with your hair drawn back in that way." If the dressmaker has sent home a frock for little Lucie, and it is a bit too short or a bit too

long, we hasten to indicate the defect to the child's mother or the child herself. If one of the family has made a public appearance of any sort, we are silent as to any compliments overheard, but we do not forget to mention unkind criticisms. In short, the great majority are over-candid in the home circle. We mention flaws, faults, and foibles, we are brusque and uncharitable, we make the awkward girl and the bashful boy ill at ease by comparing them with others who have gained a finer manner in society, and as to the table, the realism of our complaints there touches the superlative of ill-breeding.

Everybody knows that the test beyond all others of the gentleman or lady is the behaviour of each at the table. Good table manners must be learned when the baby sits in the high chair, and the lessons must be carried on through childhood until they are automatic. There are people who are never embarrassed by any number of forks and spoons, who know just what to do and how to do it, who eat their soup with silence and grace, and drink hot tea from a scalding cup without a protesting muscle, and still permit themselves to find fault if the meat is tough, overdone or underdone, if the bill of fare does not please them, if the salad dressing is not to their taste, and the dessert something for which they do not care. Children should be taught

that to be unduly candid in the line of fault-finding is as much a sin as to tell an untruth. In the matter of truth telling, the discrimination must be made that where no principle is involved, and only selfish ill-will is served, silence is preferable to telling a disagreeable truth. I am not defending a lie or pleading for invasion or prevarication. Deceit is not to be defended, but misplaced candor may be as wicked in its way as deceit itself. Whenever we can do it without the sacrifice of principle we should try to make people pleased with themselves and satisfied with their surroundings. The critical temper is the one that leads to undue candor, and it is not a temper to be cultivated at home.

MATED OR NOT.

There used to be a theory that hens without the attention of a male bird, would lay just as well and not be so apt to become broody, as those mated. Our records show they will lay just as many eggs alone, as if mated, and that unmated flocks are not broody-proof by any means. In a flock of unmated pullets, every one became broody before one of the mated flocks showed any sign in that direction.

One thing is true, and that is that eggs from unmated fowls will keep fresh for weeks.



No Danger From Fire When You Build With Concrete

A fire can wipe out in an hour what it may have taken a life-time to build.

Did you ever drop a lighted lantern in the barn or the wagon shed? You know how quickly the flames begin to dance about the floor and reach the wall. Every farmer has had this experience, and many have been sorry over the consequences.

You will never worry about fires if your barn or shed is built of concrete made with

ATLAS Portland Cement Makes The Best CONCRETE

ATLAS is the best cement manufactured. It is made of genuine Portland Cement Rock. It contains no furnace slag.

ATLAS has the greatest sale because of its uniform quality and absolute purity. There is only one quality of ATLAS manufactured—the best that can be made and the same for everybody.

The United States Government ordered 4,500,000 barrels of ATLAS for the Panama Canal. You get the same quality as the Government if you order only one bag.

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"Concrete Construction About the Home and on the Farm" illustrates hundreds of different ways of using concrete. It will show you how to make and place the concrete mixture in the best and most economical way. It gives complete instructions and illustrates them with photographs, diagrams and plans. Send for the book now.

Ask your dealer for ATLAS. If he cannot supply you, write to
The ATLAS Portland CEMENT Co.
Dept. 127 30 Broad St. New York

Daily Productive capacity over 50,000 barrels—the largest in the world



None Just as Good

SICK HEADACHE CURES.

How to Relieve This most Distressing Form of Illness.

Sick headache, while not dangerous, is one of the most disagreeable forms of illness. Some women are subject to it at such frequent intervals that they are incapacitated for several days at a time.

Unless the headache is known to come from some functional disorder it can generally be traced to impaired digestion or sluggish liver. These must be treated in the interims of the headaches, as at the time nothing but alleviating remedies are possible.

A treatment that is often successful is to abstain from red meats for a time and to be careful about taking foods that ferment easily. One man who had doctored for years for sick headaches was cured by his wife seeing to it that he drank a cup of hot water with a half teaspoonful of salt in it as soon as he arose in the morning.

A half lemon in a glass of cold water taken night and morning is another remedy that has proved helpful to many.

During the attack rest and quiet are imperative. Lie down in a darkened room, drink quantities of hot water and apply either a hot water bottle or an ice bag to the temples and the base of the brain.

Cloths rung out of hot witch hazel often bring quick relief. Headache co-

logne if rubbed on the temples in time acts as a preventive, while some sufferers are helped by taking a cathartic at the first symptom.

In severe cases five or ten minutes' treatment with an electric battery is invaluable. This is better than massage, as the pressure is sometimes too strong when the headache is bad.

In the first stages of sick headache it can often be averted by taking abdominal and neck exercises and by putting a mustard plaster over the stomach.

HOMELY HINTS.

To press seams or cloth, no matter how heavy, do not use the ordinary ironing blanket, but get a thick newspaper, double it over longways, place the seam on the newspaper, and use a good warm iron. When dressmaking at home this method will be found much easier than damping, as the best of cloth often cockles or shrinks. It is also good for pressing out creases.

Left-over scraps of soap should be put into a pan with a little water, and brought to boiling point. After the soap is thoroughly melted, pour it into a tin or jar. This makes a good soap jelly, and when dissolved in hot water it is excellent for washing flannel goods of all descriptions.

If a squeeze of lemon juice is added to the water in which rice is to be boiled, it will make it beautifully

white, and add greatly to the flavor. Boiled fruits should be kept in the dark. A dry pantry is the best place for them.

GET OUT OF THE RUT.

The man who is satisfied with his knowledge of his business is in a fair way to be passed by the enterprising, wideawake, eager to learn neighbor.

The man who relies on his father's success, and who knows what his father knew, and therefore makes it unnecessary to know any more, is already a back number.

If we were to be satisfied with what our parents knew on a line of farming, and there was no disposition to get out of the rut, we would be cutting our grass with scythes and our grain with sickles and cradles.

In 1840 the President of the United States, senators and congressmen, bakers and shrewd men, had so little faith in electricity and its practical use that Professor Morse pleaded with them for four years to get support to build a line from Washington to Baltimore. No banker or financier had faith enough in the proposition to advance him a dollar. Yet look now at the advancement in electrical knowledge, and we are only on the verge of our investigation. Yet all these achievements were based on principles that were just as true one or five hundred years ago.

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U. S. Department of Agriculture

THE BLOODED STOCK DAIRYMAN AND POULTRY RAISER



SEPTEMBER.

DOMESTIC DOINGS.

Says Hiram Henry De Hooker,
And his voice with pleasure shook:
"Since we've had our fireless cooker
We've simply fired the cook!"
—Boston Herald.

Volume XVI

Number VII

PUBLISHED MONTHLY AT
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Twenty Five Cents a Year One Dollar for Five Years

September
1910

Blooded Stock, The Eastern Farmer, Dairyman and Poultry Raiser September, 1910

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ADVERTISING RATES—15 cents for each agate line, each month. 5 per cent. discount for cash with order. Average seven words to a line. Fourteen agate lines to an inch measure.

Printed on the first day of each month by L. H. Hitchler.
Entered at the Post-office at Oxford, Pa., as Second-Class Mail Matter, May 27, 1899.

OF INTEREST TO YOU

The Advantage to the Farmer of the Co-operative Bank

Farmers in a large way of business can usually obtain advances from their bankers, but small cultivators, though able in their degree to pledge credit to advantage, cannot always borrow from ordinary banks owing to insufficient security, and the expense of small separate accounts. In Europe, where agricultural co-operation has made immense progress during the past 50 years, co-operative credit banks are now an integral part of the system, and small loans at low rates of interest are as a rule available for all legitimate agricultural purposes. A credit bank is defined as a co-operative society through which persons in a small way of business may obtain advances of money for useful purposes at a reasonable rate of interest, or again as an association of neighbors, uniting to borrow a sum of money in order to lend it out as cheaply as possible to such of themselves as need loans.

First Co-operative Bank.

Co-operative credit as thus defined originated in Germany, being due to the economic genius of two men, Raiffeisen and Schulze-Delitzsch, whose respective systems, with or without modifications, have been successfully applied in most European countries. Friedrich Wilhelm Raiffeisen (1818-1888) familiarly known as "Father Raiffeisen," in recognition of his services to the poorer classes, was burgomaster of his native town, Flammersfeld on the Rhine. He started his first small co-operative credit bank in 1849; the second followed in 1854 and the third in 1864, but it was not until 1880 that these institutions really began to spread throughout Europe. Franz Hermann Schulze-Delitzsch (1808-1883), parlia-

mentarian and local magistrate, was born at Delitzsch which was added to his surname in 1848 to distinguish him from other Schulzes in the national Assembly. He established his first credit bank at Delitzsch in 1830, and by 1858 there were 25 similar institutions in Germany. Though independent and to some extent rival organizations, both systems possessed two main original principles, viz., limitation of district and non-limitation of the liability of members; that is to say the operations of each bank were strictly limited to a small area wherein all the members were known to each other; and all the members were severally and jointly liable for all the debts of the bank.

Systems Differ.

The two systems differ in that the Raiffeisen banks are adapted more for rural and agricultural purposes than those of the Schulze-Delitzsch, which are designed rather to supply the needs of artisans and industrial workers in urban communities. The former lend small sums at low rates of interest for fairly long periods, pay no salaries, except a small remuneration to the manager or secretary, and distribute no profits or dividends. The Schulze-Delitzsch banks on the other hand lend for short periods at higher rates of interest varying from 8 to 12 per cent., pay salaries and distribute profits, and generally conduct operations upon a somewhat larger scale. A still more definite distinction between the two systems is that the Schulze-Delitzsch banks usually require tangible security for loans in the form of mortgages, bills of exchange, etc., whereas the Raiffeisen banks lend on the personal security of the borrower

with the guarantee or endorsement of two other members.

The operations of the Raiffeisen banks are generally confined to a village or township. Their rules invariably provide that only members of good character for honesty, sobriety and thrift shall be admitted, that loans may be made only to members, and only for some reproductive or economic purpose approved of by the other members. Deposits are received from members, and the slight difference between the interest paid on deposits and that paid by borrowers, not exceeding 1 or 2 per cent., goes (less expenses) to the gradual accumulation of a reserve fund, which is available for occasional deficiencies without calling upon the members. In case of dissolution of the Society the reserve fund must be devoted to some useful local purpose. The purchase of a cow, of pigs, poultry or other live stock, the draining of a field, the erection of buildings and the prevention of forced sales are amongst the purposes to which these loans are chiefly applied in rural districts. They are granted for periods sufficiently long to enable the borrower to repay capital and interest when the profits of the enterprise have been realized. As borrowed money can only be used with advantage where the margin of profit obtained from its employment is higher than the rate of interest paid for it, members have a real concern in seeing that loans are only made when there is a reasonable chance of this condition being fulfilled.

The following are the fundamental rules of a typical Raiffeisen credit bank:

- (1) Any person of good character

OUR ADVERTISERS—We believe that every advertisement in this paper is backed by a responsible person. But to make doubly sure we will make good any loss to paid subscribers sustained by trusting any deliberate swindler advertising in our columns, and any such swindler will be publicly exposed. We protect subscribers against rogues, but we do not guarantee to adjust trifling differences between subscribers and honest, responsible advertisers. Neither will we be responsible for the debts of honest bankrupts sanctioned by the courts. Notice of the complaint must be sent us within one month of the time of the transaction and you must have mentioned *Blooded Stock* when writing the advertiser.

EDITORIAL DEPARTMENT—The editors are always glad to examine manuscripts suitable for publication in this magazine. Photographers are invited to submit photographs of subjects pertaining to any phase of farm life. Stamps should accompany both manuscripts and photographs to insure their return, if they are not accepted.

BLOODED STOCK for September.

approved by the Committee, and who resides in the parish neighborhood of — shall be qualified for admission to membership provided that his liability is not already pledged by membership in a similar association.

(2) All money lent to members shall be applied to such purposes as the society or its Committee of management may approve.

(3) No part of the funds shall be divided by way of profit, bonus, dividend or otherwise among the members.

(4) Every member of the society shall be equally with every other member jointly and severally liable for all debts incurred by the society and for any loan which a member or his sureties may fail to pay.

(5) Any surplus accruing to the society, after payment of the cost of administration shall be carried to a reserve fund. If any loss be incurred by the society the annual general meeting may vote such sum as it may think desirable from the reserve fund in order to meet the deficiency. In no case shall the reserve fund be divided, and in case of dissolution of the society it shall be devoted to some useful purpose in the district in which the society operated.

Movement Growing Fast in Europe.

From Germany, the "cradle of popular credit," where, it is estimated, there are now between 4,000 and 5,000 Raiffeisen societies, besides those of the Schulze-Delitzsch and other systems, credit banks have extended into Austria, France, Italy, Russia, Belgium and other European countries. In 1907 the total number of registered credit banks in Austria was 8,477, of which 1,958 were limited liability, and 6,519 were unlimited liability societies. In France, in 1908, there were 94 regional agricultural credit banks (Caisse regionales de credit agricole mutuel) which made advances and loans during the year amounting to \$11,711,122, less repayments \$9,768,689, and there were 2,636 local agricultural credit banks (Caisse locales de credit agricole mutuel) with 116,866 members, the loans during the year amounting to \$11,835,958, less payments \$9,826,519. The growth of the local credit banks during the past ten years is shown by the fact that in 1900 they numbered 87, with 2,175 members, whereas the number at the end of the first three months of 1909 was 2,891, with 127,140 members.

In Italy, people's banks were founded by Signor Luzzatti, somewhat after the model of the Schulze-Delitzsch banks, but upon the system of share capital and with limited liability. The first Raiffeisen bank in Italy was established in 1863. Both the Luzzatti and Raiffeisen banks have been most successful, and it is stated that they even came triumphantly through the Italian financial crisis of 1893.

Agricultural Credit Banks in Ireland.

In Ireland, credit banks on the Raiffeisen principle, form part of the system of agricultural co-operation founded there by Sir Horace Plunkett. According to the latest report of the Irish Agricultural Organization Society, there were in 1907 261 Raiffeisen credit societies, with a membership of 14,875, a loan capital of \$237,094 and a turn-over of \$258,478.

Agricultural credit banks on co-

operative principles have hitherto made comparatively little headway in Great Britain. In England and Scotland farmers can usually obtain credit from their ordinary local bankers, and the principles of the Raiffeisen banks appear adapted more to the needs of small peasant proprietors, all of similar status and not differing greatly in wealth. Where, as in Great Britain, farms are of different sizes there is a disinclination on the part of the various classes of farmers to share on equal terms the burden of unlimited liability. There are, however, at present 20 agricultural credit societies affiliated to the English Agricultural Organization Society, of which six were formed during 1908.

Pioneer English Society.

The pioneer English village credit society has been in successful operation at Scawby in Lincolnshire since 1894. As the local banks multiply and develop, additional capital is provided by a central bank with limited liability, which maintains financial equilibrium between the local banks by receiving surplus funds on deposit and lending to those banks which require additional funds, the security being the unlimited liability of the local members. A credit bank on these lines has recently been formed by the English Agricultural Organization Society. In most countries where these banks are in operation they have been brought under legislative control. In the United Kingdom they come under the Friendly Societies Acts, and the maximum of any individual loan is limited to 50 (\$250). Under the Small Holdings and Allotments Act of 1907, which came into operation on January 1, 1908, a keen demand for small holdings has been made manifest, no less than 23,285 persons having applied for 373,601 acres, though by June 15, 1909, when the Commission under the Act reported, only 13,202 applicants requiring 185,098 acres had been provisionally approved. Such a settlement upon the land of small holders as appears from these figures to be in progress cannot fail to exercise considerable influence upon the future character of British agriculture, and will doubtless entail an increase in the facilities provided for credit either upon Raiffeisen principles or upon some modification of them to meet special conditions.

First in Canada.

To M. Alphonse Desjardins, of Levis, Quebec, belongs the credit of having established the first co-operative people's bank on this side of the Atlantic. He founded his Caisse Populaire at Levis, in Quebec, in 1901, adopting the Raiffeisen and Schulze-Delitzsch principle of lending only for approved purposes to carefully elected members in a restricted area, but also adopting the plan of limited liability, of withdrawable shares of small amount payable by instalments, and of distribution of profits. The general assets of the Levis Society now amount to \$101,064; a total of \$460,880 has been lent without loss, the number of loans reaches 2,700, and the total membership of the Society is about 1,100 in a population of 7,000, mostly of the laboring class. There are 31 people's banks in Quebec, founded upon the Levis model. Of these, one (St. Joseph de Levis) was formed in 1901, one in 1905, three

in 1907, 11 in 1908, and 15 in 1909. M. Desjardins states that the large majority of his banks operate in agricultural centres. He writes also as follows:

"It is in agricultural parishes that the movement is most active. Even at Levis our social district includes the environs composed of farmers, and amongst this agricultural population our loans are numerous. They are made for the purchase of agricultural implements at cash prices, to increase farm live stock, to improve farm buildings, to tide over a period of depression, to get out of a merchant's debt and for various other similar purposes. News which I receive constantly from banks established in the country tells me that loans for agricultural purposes are very active, which confirms our experience at Levis. I believe I am right in estimating at more than \$100,000 the total already lent for this kind of operations, and the movement is only beginning to spread in spite of difficulties which a more complete and generous law on the subject should obviate. These popular lend for somewhat long terms, 12, 15, 24 months and more, for agricultural credit should be fairly long in order to give the farmer time to realize his products. That is why our present institutions do not suffice for agricultural needs, because the loans are too short to be convenient. As our banks are entirely local in their operation there is no risk in locking up funds for a fairly long period, because everybody knows everybody in his parish and the danger of any sudden withdrawal of funds owing to panic is absolutely nil. This is equally the experience in Europe. The security of the loans is so high that never have I heard of the loss of a single sou."

The advocates of these banks claim for them that wherever established they encourage the practice of the virtues of independence, thrift, morality and mutual kindness and lead to the speedy extinction of "loan sharks" and other users, who, charging extortionate rates of interest, fatten upon the necessities of the poor.

NEWS NOTES ON THE CHRISTMAS CENTURY.

Club-women all over the land are interested in all that pertains to the most beautiful of all clubs for women, the "Colony Club" of New York City, which is making an enviable reputation even among men's clubs for effective management. Anne O'Hagan has written for the Christmas Century of this club, its architecture and arrangement, its objects, its ways, its members, and its unique features; and scenes inside and outside the club will be shown, reproductions of drawings by Vernon Howe Bailey.

A white man with a black soul is one of the worst things anybody ever had anything to do with. Take to the woods if you see a man of that sort coming.

Capitalists have bought 1100 acres of cut-over timber land near Boyer, Idaho, for \$29,000, and will spend \$200,000 in clearing the land and setting it to apple and pear trees.

THE COW AND THE DAIRY

STANDARDS FOR MILK AND MILK PRODUCTS.

Difference of Opinion about Legal Milk.

Prof. H. H. Dean.

It is a reflection upon man's morality and intelligence that standards should be needed in order to obtain "a square deal," or to get an improvement over present conditions. Many are of the opinion that strict and high standards are absolutely necessary before the consuming public will be reasonably sure of getting what they pay for.

Circular 74, from the United States Department of Agriculture, gives the following list of "Legal standards for dairy products," which we have taken the liberty to reproduce in part:

A growing commercial milk-product is ice cream. The United States standard is 14 per cent. fat for ice cream. Several of the states have adopted a similar standard, although so low as 8 per cent. fat is legal in some municipalities. The proposal standard for Canadian ice cream of the ordinary variety is 14 per cent. fat, and 12 per cent. fat for fruit and nut ice cream.

"Legal" Milks.

From the foregoing we see that there is considerable difference of opinion as to what constitutes "legal" milk, and milk products. For instance, we find the proportion of legal milk solids varying from 11 to 13 per cent.; the solids not fat in milk from 8 to 9.5 per cent.; the percentage of fat, from 3 to 4. In skim milk the standards are fairly uniform at from 9 to 9.3 per cent. total solids. The standard for fat in cream varies from 15 to 20 per cent., and in butter from 80 to 82.5. Most of the states adopt a "total solids" standard for cheese of from 45 to 50 per cent. The condensed milk standards are quite uniform. A variation from 8 to 11 per cent. is allowed in ice cream.

Up to the present the Canadians have thought it advisable to get along without standards, but the question is coming to the front, and they shall doubtless have to deal with it in the near future.

Arguments for Milk Standards

1. They relieve the purchaser of all anxiety regarding the purity and composition of the goods bought by him or her. It is quite natural for the individual to shift responsibility to the state. There are things which can be best done by the state. There are other things which can be best looked after by the individual. To which class this question belongs, there is some difference of opinion. Possibly both the state and the individual ought to co-operate in a matter of this kind.

2. A standard fixes the limits of composition allowed to the producer, and so long as his product comes within these limits, the producer is relieved of any further responsibility in the matter. It is thus claimed to be an advantage to the producer in that he knows what is expected in

his product. The standard is a school-master to bring the producer and manufacturer up to a certain grade. After this grade has been reached no one has any right to complain. The process tends toward equalization for all parties—no one has an advantage over his competitor.

3. The general average of milk and its products will be higher by adopting a fairly high standard and compelling all goods to be up to the standard before they will be allowed to be sold or compete in the markets of the country where goods are sold or offered for sale.

4. They will eliminate the cow producing milk of a low grade, and will also eliminate the dishonest or incompetent manufacturer or vendor. In other words, they tend to encourage the production of high-class goods, and discourage and drive out inferior goods and dishonest dealers.

Arguments Against Milk Standards.

1. The state has no right to protect one class as against another—producers, manufacturers, vendors and consumers may all equally claim the protection of the state in their business.

2. A standard tends to encourage dishonesty, in that if the standard be too low, producers or vendors may reduce the natural product to the legal standard by the addition of cheap and harmless adulterants. On the other hand, if the standard be too high, it is an injustice to the honest man who is selling his goods as produced by the cow, or as manufactured by skillful, honest labor. It is claimed that these two factors more than counterbalance any good which may arise from the adoption of standards in dairy goods.

3. Owing to the difficulty of securing satisfactory evidence with reference to adulteration of milk or its products in the past, it is claimed that a law enacting legal standards in dairy products cannot be enforced and that such legislation is worse than having no legal restrictions.

4. A process of education will be of more value in improving the quality of dairy products than will a course of law in the police courts, and be less expensive.

A NEW WORLD RECORD.

It remained for the Missouri College of Agriculture at Columbia, Missouri, to raise and develop the Champion Dairy Cow of all the world. Missouri Chief Josephine, a Holstein Friesian cow finished her days. This is equivalent to 46,781 10/16ths of a pound of butter, or 11.6 gallons every day. Her highest record for one day was 110.2 pounds. This record is the more remarkable because no special preparation had been made for this test and Josephine has done her full duty in the regular dairy herd of the University, having had five calves in five and one-half years.

Not only has this record smashed all previous world records for milk production, but the per cent. of butter fat is increasing daily, so that, barring accidents this cow will undoubtedly produce more butter during

ing a period of twelve months than any other cow that has ever been tested in the world.

This cow is but one of a number of remarkable cows owned by the University of Missouri and maintained solely for the instruction of its students in Agriculture and for investigation purposes. Only twenty Jersey cows in the history of the world have produced more than 700 pounds of butter in one year. Five of these cows, or 25 per cent. of the total number are owned and were bred by this Missouri Institution. The College owns more than 300 pure bred and registered animals, belonging to 17 distinct breeds.

Josephine's record exceeds the present world's record for six months by 1458 pounds.

DUTIES OF LIVE STOCK JUDGE.

There seems to be considerable confusion in the minds of exhibitors and fair association officials relative to the duties of a live stock judge, and these duties are frequently confused with the duties of the superintendents of the several live stock departments. Complaints have been made to me as follows:

Case 1. Exhibitor of thoroughbred stock exhibits a four year old cow as a two year old heifer, and is awarded premium by the judge.

Case 2. A pure bred bull is shown which has by accident lost an eye. In other respects he is admitted to be the best bull in the exhibit, and is awarded first premium by the judge.

In cases like these the action of the judge is frequently criticised, but these are both questions which should be settled by the superintendents of the department. The only data other than the word of the exhibitor upon which the age of the animal, and therefore the class in which it should be exhibited, can be settled, are given to the secretary at the time of the entry, and should be furnished by him to the superintendents of the department involved.

A bust of President Taft, done in butter, is to be sent from Uncle Sam's national dairy show to the White House.

The silo may not add anything to the nutritive quality of corn but it certainly does add palatability and that is an important factor.



The GUERNSEY COW
Her Dairy Products have Scored the Highest Quality and Best Color
Full information of this fine breed of GUERNSEY CLUB, Box Y, Peterboro, N. H.

The pure bred bull was never more needed than right now. Our present grade of cattle must not be allowed to go back, but on the other hand the breeding up process must continue. The farmer or stock farmer cannot afford to grow scrub stock, or anything nearly related to the scrub.

Sheep on the farms are making farmers rich in England. Sheep on American farms would do the same thing for our farmers.

A trade expert says that the market could have used a million more hogs during the past eight months without materially affecting the price.

If you are interested in decreasing the rural population you are on the right track when you are discouraging road building and better school facilities.

We seldom hear anything more about the horseless age. The fact is that horses are now in greater demand than ever before, and good ones are bringing fancy prices.

WHOLESALE SWINDLING.

As the result of recent investigations by the Post Office department, it has been determined that approximately \$100,000,000 a year for the last 25 years have been taken from the people of this country, by vendors of questionable and spurious investment securities. The stocks purchased have represented mining enterprises, manufacturing undertakings, pooling schemes, and even gambling plans, and every one "a sure thing," generally promising enormous profits. For the most part these certificates have been purchased by men and women whose desire to get rich quick made them easy dupes.

It seems almost incredible that swindling of such proportions could have flourished in violation of the postal laws. The swindlers were making fraudulent use of the mails. Among their dupes must have been some who understood that law had been violated, and who entered complaint with the authorities, yet the schemes were so cunningly devised, the literature was so carefully worded, the men conducting the frauds so cautious that it was almost impossible to locate and arrest those responsible. Even now the post office authorities have been able to apprehend less than 20 of apparently more than 1,000 men in New York City alone, who have engaged in wholesale swindling of the people.

Whether or not this expose will result in breaking up such swindling schemes is a question. Caught in one act the swindlers may devise another. There will always be some one to take "easy money," so long as there are "easy marks," and there will be "easy marks," so long as there is inordinate desire to get rich. It would seem, however, that with the publicity given the operations of the Post Office department there ought to be fewer dupes than there have been, for several years to come.

Yes, and we are of the opinion that most of this swindling is via the New York Stock Exchange. Make them a Corporation to be regulated by the State and New York.

See What Is Under The Paint When you Buy A Manure Spreader



CHOOSING a spreader that will prove a big paying investment for years to come is a serious problem. You can't judge by appearance, for all spreaders look very much alike.

The way to be sure is to get right into the details of construction. See how and of what they are made. The handsome finish of—

I H C Spreaders

Kemp 20th Century Corn King Cloverleaf

is a true index to the quality in every part—not a cloak to cover up defects in workmanship and material. See them and judge for yourself if there are any others which have—

- such a noticeable absence of troublesome, unimportant gear wheels
- so few levers
- such a perfect apron
- such wonderful range of feed under absolute and instantaneous control of the driver
- such remarkably light draft, due to roller-bearings
- such perfect distribution
- such strength in every part.

I H C spreader frames are made of hard, heavy, non-porous, resinous wood—air dried, so that the sap is retained and the wood fiber cemented together. This prevents the manure liquids from penetrating the wood—makes it impervious to manure acids.

Cloverleaf spreaders have endless aprons. Kemp 20th Century and Corn King spreaders are of the return apron type. All are made in several sizes ranging in capacity from 30 to 70 bushels. All can be furnished with lime hoods to spread commercial fertilizer and drilling attachments to distribute manure in rows.

Ask the I H C local dealer to show you the style and size that will just meet your needs. Investigate its construction carefully. Compare it with any other make if you wish—then decide. If you prefer to write direct for catalogue and full information—mail a postal today to

INTERNATIONAL HARVESTER COMPANY OF AMERICA

(Incorporated)

Chicago

U S A



A writer, in an exchange, on the beef situation, says that in 1950, when kings of finance and captains of copper and steel are gathered to banquet at \$15 per plate, the heavy course will not be canvasback, nor mallard, nor terrapin, but beef. For beef, if the present trend of things continue, will be as rare as a day in June and about as purchasable. All of which you don't believe, but listen. Did you know that within the past four years the number of beef cattle has decreased from over fifty-one and a half million to but little over forty-seven million? Did you know that in the last year the decrease has been over two million head, and that this

was nearly 2 per cent. of the total beef supply of the United States? Did you know that in the states of Texas, Montana, Kansas and Iowa, all leading beef producing states, the decline in number was over 7 per cent., while in Wyoming alone of all the important beef raising states, was there an increase over the year before? Mind you all this decline is in the face of an unprecedented demand for beef from nearly a hundred million mouths at present

If you get your calves once on sour milk, keep them there. Do not change back to sweet, or you will have some cases of bowel trouble.

HOGS

CANADA FIELD PEAS FOR HOGS.

"Having noticed the statement that the Canada Field Pea has proven a great pork producer in Canada and Colorado, I desire to learn what I can in regard to this pea. I have tried to get some information on the same from our Experimental Station, but they tell me they know nothing of its merits, or its adaptability to this climate; but that they expect to conduct a series of experiments with this pea the coming fall and winter.

If I can procure the seed I want to give it a trial. I am under the impression that this pea is much more hardy than our cow peas, and in probably by planting in early fall, subside through the winter and mature much earlier than our cow peas and by that means add an addition to our spring pasture.

If we could find something that would mature a month earlier than our cow pea, it would be of great value to our Southern hog industry. The cow pea being quite delicate they can not be planted to advantage until the chilly weather has subsided, and after the period of frost danger has fully passed. Our winters are rarely ever much colder than 32 above zero.

Do you think the Canadian Field Pea could be planted in fall and subside through our winter?"—G. A. L.

We would be glad to have the information of those who have practiced planting and growing the Canada Field Pea for the benefit of any of our subscribers who are in the hog business. It is the duty of each man to assist one another in supplying the information that will be beneficial to those who have not had the experience and are in need of it.

It is our own belief that the Canada Field Pea would go safely through a winter, as we have noticed sometimes in Southern Indiana the ordinary garden pea was sufficiently hardy to withstand a winter. Whether it would be dwarfed by the cold so that it would not grow as quickly as if planted in the spring or not, we can not say in the absence of experience; but our friend is taking the right course and we have put him in touch with getting the seed so that he can make the trial and decide positively for himself.

We are unable also to state whether the hardy pea that can be grown in Northern Michigan, Wisconsin, Minnesota, North Dakota, South Dakota, New York, Colorado, Utah and Canada can be grown successfully in the climate mentioned. It would seem that they ought to grow in a soil and climate that would produce the cow pea.

A friend of ours has experimented a little growing Canada Field Peas in New Jersey, but not very encouragingly. The soil, however, was light, and the summer an unusually hot one. As a boy, in Canada, I remember we grew our peas on clay, well worked and with plenty of manure.

But what pork they did make! firm and sweet. The cows enjoyed the straw, too.

STIMULATING THE HOG INDUSTRY.

The business men of Fort Worth, Texas, have fitted up a car with hog pens and all the appliances necessary to run a hog farm. This car is run a round through different sections of Texas with the view of interesting the farmers and planters to engage in the hog business, to enable them to supply the packing interest at Ft. Worth with hogs sufficient to keep the packing houses busy.

They are doing everything possible to encourage farmers to investigate and become familiar with the proper up-to-date methods of raising hogs. It ought not to be much trouble, with the present prices of pork hogs, to interest the farmer occupying these cheap lands to engage in hog raising.

Another feature of the case is the fact that a packing plant is being built at Oklahoma City that will cut off a large territory that has been heretofore supplying Ft. Worth markets, which renders it necessary for the Ft. Worth people to stimulate the raising of hogs in a section of Texas within shipping distance of the Ft. Worth markets.

Texas is fast becoming one of the great hog states, and the time is coming when it will figure with the best hog-producing states of the country, owing to its immense extent. Its varied food products and its great variety of grasses and green foods throughout the winter season will make it cope with any state in the Union in producing not only an abundance of pork, but at cheapest cost.

WHAT SECOND CROSS WILL BRING.

"We got caught in the line light of the drought, consequently not much doing. Long faces, light pocketbooks will bear you in remembrance whenever anything to offer. Ask the boys what they expect from the second cross when using the big type boar on the medium type sows, as many of them are doing. They remind me of my friend Jones, who votes the Republican ticket one year and the Democratic the next. He is neither one or the other, and I think the boys will find themselves in the same band wagon with Jones."—L. C. Walbridge.

Better stick to a recognized strain of one of the standard breeds, and let the experimenting go to the "fancy" farmer, and to the experiment station.

SOWS IN PIG.

Whether or not a sow is safely in pig will be known usually about 20 or 21 days after coupling, so that the probable time of farrowing may be known. The period of gestation is about 112 days from the date of service. Young sows are likely to carry their first litters for a slightly shorter period, not infrequently farrowing in 106 or 108 days, while old sows may take a longer time, extending to possibly 115 days. Instances are exceptional when any variation either way exceeds a week from the 112th day.—From Coburn's "Swine in America."

SELECTING A BROOD SOW.

In considering the efficiency of brood sows, Henry Wallace gives the following advice: "Go over those that have had pigs the present year and ask them the following questions: How many pigs did you have this year? Were they even in size and form? Were they all good ones, or did you have two or three choice pigs and were the rest quite inferior? How did you take care of these pigs? Are you a good suckler? Are you good natured? Are you a good mother, or are you one of the nervous, fidgety kind, always worrying and fretting for fear somebody will hurt you or your precious piglets? If the brood sow on being interrogated, cannot give satisfactory answers to these questions it is not worth while to scold her or give her a moral lecture. Just turn her into the fattening pen for there is where she belongs."—From Coburn's "Swine in America."

ALFALFA ADDS 15 PER CENT. TO 30 PER CENT. TO DAIRY PROFITS.

No other branch of agriculture presents more advantages than dairying—disposing of the products of the farm as milk and butter-fat. When the latter may be sold to creamery stations and the skim milk fed to calves and pigs along with alfalfa the profits are greater than from almost any other form of agriculture. No other business tends so rapidly to build up the fertility of the farm, and, when judiciously conducted, no other branch of farming yields more satisfactory financial returns. Raising and feeding alfalfa will add from 15 to 30 per cent. to the profits of dairying over the use of any other feed stuff that may be raised or bought. The profit problem for the dairyman is constantly to find the feed that will decrease the cost of his production.—From Coburn's "The Book of Alfalfa."

HOG NOTES.

Before farrowing the sows need good nutritious bone developing foods. At farrowing time they need something that will stimulate milk production.

Hog tight fences have always been considerable of a problem. The woven wire fence solves the problem both in economy and ease of construction.

Every farrowing pen should have a good fender to prevent the sow from lying on and smothering the pigs.

Hogs, especially brood sows, should have salt where they can go to it at any time.

The old dirty pen as a factor in hog raising is fast losing popularity, much to the joy of the hog.

Plenty of clean bedding will not engender disease. It's the filthy nest that does the harm.

The brood sow needs a mixed diet in which there is plenty of food rich in protein.

BLOODED STOCK for September.

When coarse straw is used for bedding, the little pigs often get tangled up in it and are unable to get back to the sow. They become chilled and frequently do not recover. The way to solve the problem is to cut the straw and provide a finer bed.

There is something wrong on the dairy farm that does not have a few hogs.

Both the grass and the exercise gained in getting it are helpful to the hog.

If you doubt whether a pig enjoys grass give him a chance to show you.

Nothing stimulates the system of the hog like pasturage.—Kimball's Dairy Farmer.

POTASH FOR HOGS.

A large hog raiser says that one of the things he has discovered is that hogs need a large amount of potash. He buys a box of crude lye, such as they sell at drug stores to make soap with, and uses this box to a barrel of soaked corn slops or shorts when feeding. He says that wormy, coughing, stunted hogs make a marvelous change for the better when it is fed to them.

It may be best to explain to the reader that potash lye is a caustic concentrated form of potash, and while it would answer the purpose, we believe less than one box to two barrels of such feed would be enough. Slacked lime may also be fed in this way, two pounds to a barrel being enough. So far as the potash is concerned, however, wood ashes from which we formerly got much of our supply, will furnish the potash in less caustic form, and are recommended for use where they can be had as these caustics are dangerous should the hogs get too much of them. Both the potash and the lime are needed in the construction of bone and teeth.

A CHEAP WINTER FEED.

Every man raising hogs is interested in cheapening his feed. Feed is the principal cost of producing pork. To get the gain and growth, it is necessary to feed some character of food.

Green feed, on plant growth, is one of the cheapest that can be furnished hogs. This is where the clovers and alfalfa make the cheapest feed that we have; but as they will not grow in winter time, nor will they withstand freezing, it is necessary to get a plant that will be relished by the hogs and furnish them the necessary food late in the fall, through the winter and early in the spring.

This can be accomplished in part by sowing a field of winter rye, which is harder than most grains. A very careful farmer has estimated that he has gotten \$50 an acre out of his crop of rye fed to hogs each year.

Some farmers sow rye, wheat and barley mixed and some sow wheat alone for pasturage; but a field of rye is valuable and desirable for hog pasture; it can be pastured until late in the spring, in fact parties have grazed it until just before it started to joint and then cut a fair crop of grain from it.

In feeding grass, either alfalfa, clover, blue grass, rye or other grasses, it is necessary to get the best results, to feed some grain with it. The two combined make a balanced food that will bring about the best grain and growth and is cheaper than to attempt to feed either alone.

The rye should be sown as early in September as possible, so as to get a good start in the fall, to protect it some through the winter and furnish a pasture at the time when it is most needed.

Pains should be taken to get the ground in good order, as it pays well to have the soil in good condition. It will get a better stand, it will come up quicker and will grow more rapidly if proper attention is given to the preparation and sowing it.

The boar of eight months or older will do better if kept by himself, at least he should not be where the sows or gilts may arouse him. He should be kept in a comfortable pen, with a lot of pasture adjoining and supplied with a variety of nutritious food, which means something more than dry corn with an occasional drink of diluted dish water. The permanent quarters should be provided with a view to furnish sunlight, exercise, dry warmth and cleanliness. These should be so located that the sows may be conveniently brought to him for service. A large pen is not needed, ten feet square will do, but a yard and pasture should each be adjacent. The yard will be needed for service and for his exercise in the breeding season, and the pasture which may be an acre or less should afford him water, shade, grass, alfalfa or other succulent food.

—Swine in America.

FEEDING GARBAGE.

A subscriber writes asking if feeding garbage from a hotel is dangerous for pigs. In reply thereto we have to say that there are some characters of garbage from the table that is a splendid food and, of course, cheap, as it never costs anything but the

collection. There are herds managed, grown and pork produced on garbage, making good meat, but pains must be taken to prevent the introduction of coffee grounds and water that the dishes have been washed in, as it is usually soap or some compound used that is injurious and in some cases fatal to hogs. The soap and water or compound has no food value and is dangerous. There is also a likelihood of there being slivers of glass or from dishes that swallowed by the hogs might prove fatal.

HOGS.

FOR SALE—Thoroughbred Durocs Poland Chinas and large Yorkshire Swine, Rhode Island Red Chickens and eggs. WM. HARSHMAN, Thurmont, Md.

BARGAINS IN POLAND - CHINAS, BERKSHIRES and CHESTER WHITES I now have a large stock of probably the best I ever owned. Cannot tell you all here, but I have Boars and sows, all breeds, 3 to 6 months old mated not akin; sows bred and born ready for service. Guernsey Calves and Registered Scotch Collie Puppies. Write for prices and free circular. This stock must go and will be sold. M. B. Turkey, Barred and White P. Rocks, B. Leghorns and Beagle Dogs. P. F. HAMILTON, Cochranville, Pa.

FOR SALE—Some fine Yorkshire Pigs—no better stock in U. S. Just imported—new blood. A. A. BRADLEY, Frewsburg, N. Y.

MILK GOATS.

MILK GOATS—Information regarding this most profitable milk producing animal. Write G. H. Wickesham, 1242 St. Francis avenue, Wichita, Kansas.

POULTRY.

FOR SALE—Good honest stock eggs of Single Comb Brown Leghorns; finest strains. Cups and Blue Ribbon winners at Cumberland, Frostburg and Somerset. 600 fine large farm-raised birds for sale at reasonable prices. Twenty-five extra choice Light Brahma cockerels for sale. Write me. HERMAN SHOCKEY, Sand Patch, Pa.

MISCELLANEOUS.

HORSES going blind Barry Co., Iowa City, Ia., can cure.

AUTOMOBILISTS ATTENTION—Fur-lined coat never worn, lined throughout with the best Australian mink, elegant Persian lamb collar, cost \$175, will sell for \$35, also pair of cinnamon bear robes \$30 cost \$120. Write W. SCOTT, 121 East 27th St., New York.

TROTTER MARE for sale—a handsome, black, trotting mare, and beautiful stud colt, very fast. Second cousin to Dan Patch. Price \$200. P. J. WYAND, Cumberland, Md.

FOR SALE—Two litters Scotch Collie puppies, sired by the noted "Flying Comet" and "Laddie Boy," out of bitches bred in the purple, perfectly marked golden sable; strong, healthy, farm-raised stock. Prices from \$10 up. FRANK H. TAYLOR, Reidsville, Pa.

SEND 10c for a sample copy of the largest, newest, race-horse paper published. P. J. WYAND, Cumberland, Md.

FOR SALE—Pure bred Registered Holstein bull calf. Mostly white. Fine individual. Good pedigree. Write for pedigree, photograph and price. MADISON COOPER, 101 Court, Watertown, N. Y.

Headquarters for Breeders in N. Y.



Broadway Central Hotel

Broadway, Cor. Third Street
IN THE HEART OF NEW YORK

Only Medium Price Hotel left in New York
Special attention given to Ladies unescorted

SPECIAL RATES FOR SUMMER
Our Table is the foundation of our enormous business.

American Plan, \$2.50 upwards
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DAN. C. WEBB, Proprietor
The Only New York Hotel Featuring
AMERICAN PLAN

Excellent Food Good Service

OUR FEATHERED FRIENDS

Conducted by George W. Miller.

FEEDING LAYING HENS.

I feed a mash in the morning, made as follows: 100 pounds each of bran, provender (corn and oats), gluten meal and linseed meal; 50 pounds beef scrap and 25 pounds alfalfa meal, giving about two quarts of this to each 20 hens. Early in the morning I mix this up in a tub or pail with enough water to moisten it, and let it stand for a half hour for the alfalfa to swell. This is fed about 8 o'clock in the winter and 6,30 in the summer. For the noon feed I give to each 20 hens one quart of the following mixture: 100 pounds each of barley, buckwheat, wheat, oats and cracked corn. This is thrown in the litter in winter and fed in troughs or on the ground in summer.

At night I feed whole corn in the winter at about 4,30 o'clock. In summer the cracked corn is left out of the grain mixture and fed at night at about 6 o'clock, giving one quart to Norfolk Co., Mass.

Mr. Richards is feeding a very expensive grain ration, and one, in our judgment, not properly balanced. Too much wheat and buckwheat and not all the corn the combination would stand. We certainly would not advise a mash food containing anything like so much linseed and gluten. How on earth can the woman make her hens pay their feed bill? or thrive on such a diet?

POULTRY AND PROFITS.

Undoubtedly the poultry business, as a business, is one of the most profitable in which one can engage—when done properly.

However, the business is done any amount of injury, year by year, by people whose principal equipment for the poultry business is that they know about 20 hens.—Arthur J. Richards, nothing about it.

They look at it with an unbusiness like view which they would assume toward nothing else on earth.

One hundred dollars invested in business will produce about \$6 a year, and yet they expect \$100 worth of poultry to produce a revenue sufficient to support a good-sized family.

Is this good business judgment? Is it possible to make such enormous profits from poultry. Most certainly not. While it will produce as much as \$100 invested in any sort of business such unreasonable expectations are bound to be disappointed.

One should not cast reason to the winds when considering the poultry business any more than when considering live stock or dairying—Exchange.

Much of this is too true. We all think it's a cinch to make money raising poultry, and jump into it with little thought and no plans of what we wish to accomplish. Inexperience is one of the most prolific causes of failure in business and must also be reckoned with in poultry and egg producing.

At the same time, an investment of \$100.00 in poultry will, we are confident produce far more than \$6.00 net profit, far more than in any other line of work. A hundred dollars will

easily build and equip a house and yard for 40 hens, and pay for the 40 hens besides, and if you cannot make more than a profit of \$6.00 a year you better keep your money in your pocket. It's absolutely absurd.

POULTRY AND GRASS-HOPPERS.

It is not too early now to begin to plan for next year, and therefore the following advice by W. E. Vaplon, Poultryman at the Colorado Agriculture College, is interesting.

Perhaps we are neglecting the readiest means of mastering grasshoppers in trying to find some new remedy. Perhaps, where a large crop is threatened, the remedy we suggest might not be effective, but we believe th chickens and turkeys, if properly handled, would in a large measure, take care of the grasshoppers. So long as we feed the fowls liberally about the buildings, they will not forage much or far from the feeding place; but if movable colony houses were provided, and placed in the fields, and the fowls were fed very little, and that feed scattered broadcast over a large acreage, making the fowls hunt for it, they would very largely take care of the hoppers. This should be done at the first appearance of the hoppers in order to keep down the increase as largely as possible, and it is astonishing to see how many gallons of hoppers a hundred chicks or turkeys can dispose of in one day. No feed should be given in the morning so they will be more ready to forage.

We have always advised disposing of chicks, with the exception of those meant for breeders for the next season, just as soon as they are large enough to market as the prices later

in the season will not pay for the increased weight. But by the great damage being done by grasshoppers we believe a farmer will make a mistake by selling his poultry until this pest is disposed of. If we had a specially valuable garden crop, we would surely protect it by this means, even if we had to buy poultry and had to herd them during part of the day.

Winter Housing and Feeding.

Turkeys do fairly well roosting on trees or fences near the buildings during winter, but I consider a shed, open on one side, much better. Either plan is preferable to compelling them to roost in a warm house, or with the other poultry.

During the day they should have freedom to roam as much as they desire, and, on stormy days, have some protection from the elements, besides being closed in a small building with about a hundred other fowl.

I have known turkeys to be kept "huddled" through the winter in a small filthy hen-house, and their vitality lowered to such an extent that their progeny was doomed before they came out of the shell.

Turkeys are the most cleanly birds raised, and cannot thrive in filthy quarters. If possible at all they should be fed by themselves.

The best turkey house I have ever met with was a feeding and roosting house combined and was in the form of a "lean-to" on the south side of the farm barn. It was over 30 feet in length, and about 12 feet in width, single boarded only, and shingled. Windows and sliding doors were put on south side. The rafters were not cut off close to the building as is customary but extended over about four feet. Under the points of the rafters four short posts, about two feet above ground, were placed, and

this two feet closely boarded, while from these boards to the points of rafters two inch poultry netting was secured. Immediately under the poultry netting and against the two feet of boarding a small trough was nailed. The "run" under the extended rafters, which were, of course, boarded over and shingled, had a door in one end, and, in the evening, the turkeys were brought through this door and fed in the trough, the sliding doors left open into the main house, and the door on "run" being closed they had splendid light to see their food, had it to themselves and were compelled to roost in the house proper which could be kept cool by means of sliding doors and windows.

Where a building such as this can be arranged it will be found a great convenience, and the place above all others to carry turkeys through the winter.

Winter Feeding.

As to winter feeding, I think there is nothing better than a light feed of oats in the morning and a fairly good feed of sound wheat at night. Grit or gravel should be placed within the birds' reach, and an occasional feed of small or unsound apples are relished. They should not be compelled to drink from stagnant pools in the barn-yard in soft weather, but should have clean water somewhere available at all times. Once the snow leaves the fields the hens should only receive one light feed of oats and wheat mixed in the evening. They will find so much food over the fields that they are likely to become too fat and lay soft-shelled eggs, if fed twice per day. Oyster shells at this time will also help to prevent the latter.

TURKEY RAISING A BUSINESS FOR THE FARMER.

Is Very Profitable When Well Looked After.

Are turkeys profitable? This will be the first question in the mind of a beginner in the turkey-raising business. I think this will be answered in the affirmative by every unprejudiced person who has noted the prices paid for turkey meat upon the markets the past three years, in many cases costing the consumer 35 cents per pound.

However, it is not what the consumer pays but the amount received by the producer which has to be taken into account. Hundreds of producers have received around 24 cents per pound in the month of December, for the year of 1907, 1908 and 1909. Therefore, it is clear that the high values are not unnatural "boom" prices, but a gradual gain since the year 1901. Indications at present point to still higher prices for the coming season. One of these indications is the high price of other "meats" and another is the scarcity of breeding stock very evident from the few breeders who are advertising this year compared with former years.

Take these high prices in connection with the undisputable fact that turkeys make half their weight upon ing some turkeys that were pronounced the best in the land by competent judges, and have been successful in clearing the mortgage off a moderate farm that I am sure would have remained only for the turkeys.

Get Proper Breeding Stock.

The first point I wish to impress upon a beginner is to secure proper breeding stock, and have these birds properly cared for through the winter season. I have many times noted the folly of persons starting with turkeys, who commence by purchasing the most expensive prize-winning stock they can find. I think this mistake is not confined alone to beginners in turkey rearing, but is often committed by beginners in all kinds of live stock. My humble advice is, find out what you can do first with moderate-priced stock, and if you succeed then branch out into the highest quality. If you are one of the failures (and there always will be some) then your loss will be slight. This experience with moderate-priced stock will be a valuable help in after years when the loss of a high-quality bird would be a severe blow.

Starting without any previous experience I would say buy from an ordinary healthy farm flock—four or five moderate-sized young hens, twelve to fourteen pounds each, and nearly the color of the variety fancied. With them mate a healthy young Tom, from some breeder of the pure-bred variety which you favor. This would be an inexpensive start, and, if successful, the Tom could be used the second year and a pure-bred hen of fair quality could be added, making a start in the latter, and as it were "feeling your way as you went along." Once a breeder has demonstrated his ability to raise turkeys successfully there is no doubt the "pure-breds" will prove the most satisfactory, were it for nothing more than uniformity in appearance both alive and dressed.

Breeding For Market Purposes.

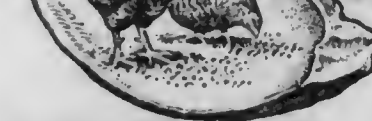
Following this second season—should he decide to breed only for market purposes—I would advise buying the largest and best shaped young Toms he could find, with fair color points as well, to mate with the pure stock he would have from the hen added the second season. Should the breeder decide at this stage to do some showing at "Fairs" and furnish breeding stock for others, I would consider it wise to go to the bottom of the purse for a pair or trio of the best to be had, and then devote all your energies to holding or improving the quality of this foundation.

I have noticed many breeders of different kinds of live stock, who have made a great "sensation" for a few years on purchased stock, but who invariably "dropped out" through their inability to produce anything of a high class themselves. No matter which line you intend following, it is essential that your breeders be healthy, vigorous and well developed. By the latter I mean that no late July or August hatched birds should be used, nor ones with crooked breasts or toes, twisted wings, wry tails or any deformity whatever.

Selling bread by weight is right and proper. It should be the law in every state that bread be sold by the pound. If the loaf is less than the quantity called for, it can be made good by a piece cut from another loaf. This is the custom in England, and has been so for nearly a hundred years.

Belle Brand Crushed Oyster Shells

Make Poultry PAY!



Tests show where these shells have been used—duration of test 22 days—number of eggs, 33; weight of eggs, 1489.6 grammes.

Where Sharp Grits were fed—test 22 days—number of eggs, 6; weight of eggs, 277.6 grammes. This is a convincing argument why every poultry house or yard should have them. They'll make hens lay an egg a day, with firm, hard shell—less liable to break in shipment.

Belle Brand Crushed Oyster Shells supply Carbonate of Lime in natural form and act as a grit, making them superior to any other poultry food on the market. Write for Free Catalogue to LOUIS GREBB, BALTIMORE, MD.

NEED HELP.

Live Stock Interests Want Your Personal Assistance.

A growing interest is being taken in Maine live stock. Men are realizing the value of better stock and better methods of care and management. Each man alone can solve many of his own stock problems, but some phases of animal husbandry require the united efforts of all the breeders in the state. You, Mr. Breeder, know some co-operative work you would like to see go forward to improve the interest of Maine horses, cattle, sheep and swine. This work may along any of the many lines.

Will you, to-day, write the Secretary of the Maine Live Stock Breeders' Association about the problems that are nearest to you so that the matter may receive proper attention at the annual meeting to be held at Waterville, November 15th and 16th. —R. W. Redman, State Dairy Inspector, Augusta, Maine.

Last year Iowa raised 116,000,000 bushels of oats and Illinois 159,064,000 bushels. These are the great states for oats.

\$350 a Month--500 Hens



Edgar Briggs did it! BRIGGS, the Thomas A. Edison of the Poultry World—the man who wrote "Profits in Poultry Keeping Solved"—fourth edition just now ready. No branch of mercantile business or farming pays the profit that poultry guarantees under the Briggs system.

discovery alone is now saving farmers and poultrymen thousands of dollars daily. He feeds his hens "poultry ensilage"—a processed feed that makes them lay regularly, even in winter, when egg prices are "out of sight." Briggs tells how to make the ensilage at not to exceed 15c per bushel.

Briggs' Book contains literally hundreds of secrets, making poultry raising for every one a profitable business or side line.

FEAST OF FACTS, \$1.00—For a short time only we offer Briggs' Book "Profits in Poultry Keeping Solved"—100 pages, fully illustrated and nicely bound, including "Secrets in Poultry Culture"—the many secrets used by Briggs, and one year's subscription to "Poultry Success," the leading monthly poultry journal. If you have never read it, borrow a copy from your neighbors, or write for samples. ALL THE ABOVE ONLY \$1. Write to-day.

THESE SICKLY-LOOKING CHICKS NOT FED OUR WAY

They wouldn't be wilted, forlorn and droopy as are these poor little fellows. What's the matter? Likely some one has been feeding a lot of table scraps, or sour bread, or some other indigestible mixture that is fermenting in their stomachs. Tomorrow the owner will find eight or ten dead, and wonder: "What killed my chicks?" Chicks are babies and must have baby food. That's why Puritan Chick Food is so successful in rearing chicks, keeping them well and holding down the death-rate. It just "fits" the interior mechanism of the digestive organs of a chick.

Puritan Chick Food (The Safe Kind)

has a delightful taste and odor to a little chick, because it is compounded of those very pure, wholesome and sweet elements that naturally attract it. Your little "puff-balls" will make things fly scratching; they are always happy and busy, when fed on it. Some of the largest poultry plants use Puritan Chick Food. It pays them. It will pay you, no matter how small your flock. It is foresight, wisdom, economy and profit, for you always to keep it on hand. It's true life insurance for your chicks, all other things being equal. We guarantee it so, and refund money if you're not satisfied. No fussing about it, either—your word is final. Puritan Chick Food is put up in 5-lb. boxes for 25c; 25-lb. bags \$1.00; 50-lb. bags, \$1.75; 100-lb. bags, \$3.25. Ask your dealer for it. If he hasn't it we'll supply you. Booklet free. Write now for it.

Puritan American Poultry Food Mfg. Co., Bound Brook, New Jersey



FRUITS AND VEGETABLES

THE FARMER'S RELATION TO SOIL FERTILITY.

Henry Wallace, Des Moines Iowa.

"The fertility of the soil is the greatest asset of this country. In the creation of the Mississippi valley nature leveled it off with the glacier. She covered it with the best dirt from Canada. Then she put her hand over it and kept it covered until art, science, religion and civilization had developed in other parts of the world. Then she took her hand off the valley, filled it up with an assorted people from the East, both from Europe and Eastern America, and told them to make this the garden spot of the earth. How have we done it?"

"A hundred years ago, from the Alleghenies to Indiana there was a forest, an acre of which would to-day be worth a king's ransom. We have used walnut trees for fence rails, we have deadened the trees, burned them down and niggered them off. From this same land to-day comes the cry for patent medicines in the shape of commercial fertilizers. The farmers there say 'We cannot even grow clover.' God help the man who can't grow clover. We wasted the timber and then we wasted the fertility of the soil."

"In the south are six million acres of abandoned farms, with trees on them as high as this building. After every rain these acres lift their tear-stained faces to heaven with a plea to the Almighty to send them some man with sense enough to farm them. 'You cannot imagine the extent to which we have wasted the fertility of the soil.'"

"I am not going to let the farmers rest under the accusation that they have wasted their resources without telling why. We are like boys given an inheritance. We have squandered it. It is the nature of the beast to get rid of what we don't work for. 'When the railroads pushed through this country men took up as much land as they could. Many a man is land poor to-day. Then came farm machinery which made it easy to farm extensively. Then the homestead law went into effect. It was meant as a benefit, as a bonus, a subsidy to the agricultural industry. Then people began playing a game of leap frog from Indiana to the Middle West. As a result farmers were compelled to sell their products actually at less than the cost of production.'"

"You can't subsidize anything, a factory, a railroad, or even a boy, without injuring it. The subsidy had the same effect upon the farmer as the high protective tariff has on the factories, except that the farmers cannot combine to keep the prices up. 'Another thing happened. We were compelled to practice extensive farming instead of intensive, because of the inability to get sufficient labor, either on the farm or in the house. No man here who is a widower is ugly enough but what he could get two second wives easier than he could get a hired girl.'"

"Even if we raise our own help we can't keep them. We would increase the yield of our farms 25 per cent.

in three years if we could get the help. The fact that we cannot get labor means that farm products will continue to be high priced, and farmers can begin buying automobiles just as soon as they get good roads to drive them on."

"While we have been wasting the fertility of the soil, there is a point beyond which the Lord won't let us waste it. When the point is reached He locks it up until some man of sense comes along and then He gives him the key."

One hundred and fifty years ago the yield of wheat in England was twelve bushels to the acre. Poor Ireland averages about thirty, with France and Belgium about the same, while we are in the same class as the serfs in Russia. Lands that have been farmed for a thousand years are putting us to shame."

"There may be an excuse for some to starve their land, but there is none here, where clover, the greatest gift of God to man, except woman, is almost considered as a weed."

"Another piece of advice I wish to give you. Don't go crazy and go off to a new land to get rich quick. To try to get rich quick is the surest way of getting poor fast."

WHY UNDERDRAINS ARE VALUABLE.

Make the Soil More Productive—Conserve Soil Moisture.

If underdrainings will increase the crop output of land by \$20 per acre, on the average, as it does according to the reports of men who have drained, it should be interesting to enquire how it does so, and to note the change in soil conditions that contribute to such an important result."

More Air in Drained Soil.

In the first place drains have a loosening effect on the soil, thereby rendering it more porous and therefore capable of containing more air between the soil particles. Not only so, the air is able to pass in and out of the soil more freely because of the larger pores, and in this way the soil air is purified and the roots have a healthy atmosphere in which to live. It should be borne in mind that pure air is just as essential to normal root development as to satisfactory growth of animals. This being the case the supplying of abundance of fresh air as a result of drainage, is an important improvement in soil

conditions.

More Water in Drained Soil.

But there is another important result of the increased porosity that drainage gives; a drained soil, when ready to work, has more water in it for the crops than an undrained soil when it is ready to work. Strange as this may at first appear, it seems quite natural on second thought, for there's more room for water, more pore space in this drained soil. By actual test of a sample of loam brought in from the field, and one part packed like undrained soil, and the other left loose and porous like drained soil, I have found the latter, after being saturated and allowed to drain, to retain 28 per cent. more water than the former after being treated in the same manner. We must conclude that between drained and undrained land the difference in water-retaining power is somewhat similar. Applying this percentage to a soil drained three feet deep, we find that when fit to work it actually has about three inches more of rain in it than similar soil, but undrained, has when it is ready to work, and three inches is about as much rain as we get in a whole month anywhere in the earth."

Drained Soil and Capillarity.

Now the upper layers of the soil, where the roots feed are not capable of sorting enough water for the crops, even when aided by the summer rains. But deeper down in the soil, three, four, five and six feet, there are larger quantities of water, which travel slowly upward and gradually reach the roots. Water travels upwards through the soil as tea will travel upward through a lump of sugar, or water through a sponge. This movement of liquids upwards or sideways through porous bodies is known as capillary action or capillarity. Liquids move downwards by the same process, as well as by the more rapid action of gravity. And when a soil has been saturated and all the water that will has drained away, it is this same power of capillarity that holds a large amount still in the soil."

Capillarity is not a new idea. From childhood we have seen coal oil lamps with the oil travelling up the porous wick by capillarity to supply the flame at the top. The same thing takes place in the soil. As the dry weather advances and the roots use

up all the available water in their vicinity and call for more, as the flame calls for oil, capillarity steps in and, by slow degrees, raises a continual supply from the moister soil below, as the wick raises the oil, and the plants thrive on into the drought. By and bye the water lessens, and the plants begin to wilt and turn pale, just as the lamp flame grows dim when the supply of oil is checked."

Now, drained soil has greater capillary power than the same soil undrained, because it is more porous; and, consequently, it continues to bring up water from below, and keeps the large plants fresh and green long after the undrained has failed to supply enough for its small ones."

The reader will readily recall that in the dry weather of August the driest parts of his farm are those that in the spring time were the wettest, and, further, that the crops on these portions are the first to suffer from drought, results easily explained when he knows that these soils contain really less water when fit to till, that they bring up less by capillarity, and that they lose more by run-off, and also more by evaporation, as we shall see later."

More Root Space.

But there is another reason why capillary action is slower in undrained soils: Roots strike much deeper than in undrained soil. Pine trees for instance thrust their roots down three or four feet, whereas on high well-drained land, on flat wet-bottomed, undrained land they stay near the surface, and thus, when the dry weather comes, capillarity has much further to bring the water to the roots than in the drained land; and the farther capillarity has to act the less water it will deliver to the plant, just as a man pumps less water from a deep well than from a shallow one."

Warmer in Spring.

Moreover, in the springtime a drained soil is warmer than an undrained, by from 5 to 12 degrees. Two causes unite to keep undrained soil cold. First, water is the hardest known substance to heat, and since for three or four weeks the undrained soil contains more water than the drained, it will naturally heat more slowly."

Secondly, evaporation is a strong cooling agency. It takes about 5.9 times as much heat to evaporate water as to heat it from freezing to boiling; and all that portion of the sun's heat used in evaporation is not available for heating the soil. Now evaporation falls off much earlier on the drained land and hence the undrained remains cool much the longer."

Seeds Germinate Better.

The first, and one of the important, results of this difference in temperature is that seeds germinate better in the drained land. Every kind of seed has a temperature at which it germinates better than any other. At too low temperature many of the seeds will not germinate and those that do grow very slowly. Drainage overcomes this slow, incomplete germination."

Bacteria Thrive Better.

From the higher temperature, coupled with the presence of more fresh air, the drained soil is superior in another way. Soil is alive with bacteria. These little organisms are to the

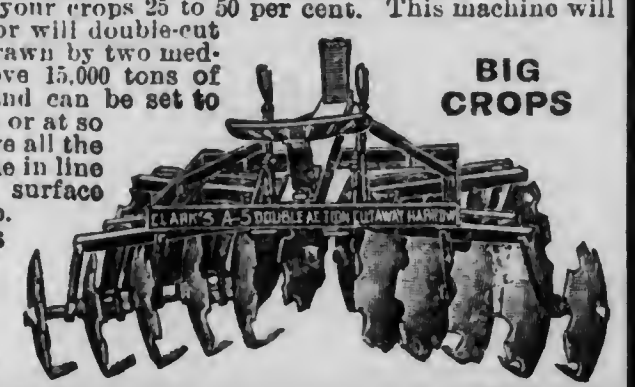
CLARK'S CUTAWAY TOOLS

DOUBLE ACTION "CUTAWAY" HARROW

WITH JOINTED POLE. It is made especially for every day work. It will increase your crops 25 to 50 per cent. This machine will cut from 28 to 30 acres, or will double-cut 15 acres in a day. It is drawn by two medium horses. It will move 15,000 tons of earth one foot in a day, and can be set to move the earth but little, or at so great an angle as to move all the earth one foot. Runs true in line of draft and keeps the surface true. All other disk harrows have to run in half lap. The Jointed Pole takes All the Weight Off the Horses' Necks, and keeps their heels away from the disks. We make 120 sizes and styles of Disk Harrows. Every machine fully warranted. Send for FREE Booklet with full particulars.

CUTAWAY HARROW COMPANY,
Main St., HICCANUM, CONN.

BIG CROPS



plant what the cook is to the family—they prepare the food, make it edible to the plant, so to speak. By their agency manure and clay and sand, which the plant cannot use as such, are changed into salts, which dissolve in water, and with it pass into the roots to sustain the plants."

These bacteria need fresh air as much as plants or animals do. In the drained land there is plenty of it. Moreover, a congenial temperature is needful as much to them as to man, and this, too, they find in the drained soil. Here, then, they thrive and flourish, combining the elements of the air with those of the soil, and give to the plant abundance of food made to its very liking. In the undrained soil, however, the scant supply of air becomes impure, and this, with the cold, renders most of them so inactive that but little food is prepared; and one of the varieties is so constituted that when air is scarce it lives on the food already fitted for the plant."

From which it follows readily that the amount of plant food available in drained land far exceeds that in the undrained. And the more extensive root systems in the former enable the plants to make full use of this advantage."

Easier to Work.

The greater porosity and looseness of the drained soil coupled with its superiority in other physical properties prevents it from baking as hard as the undrained, and consequently it is in better "condition" than the undrained and easier to work."

Thus we see that in every essential property the drained soil is superior, and hence it is not surprising that it gives the better financial returns."

Questions of nonessential blemishes are also questions for the association to settle through its secretary and superintendent. If the association decides to disregard these blemishes and permits the animal to enter the show ring such action is binding upon the judge, and he should be expected also to disregard such nonessential blemishes. In other words, it is the duty of the fair association, through its superintendents of the several departments, to see that animals are shown in the classes in which they belong, and the superintendent's decision upon all questions of age, classification, and fitness to be shown should be final. It is the duty of the judge merely to pass upon the relative merits of the animals admitted to the ring by the superintendent. Of course, in the younger classes, it is necessary for him to take into consideration the age of the animal, and should he feel that an animal is being improperly

shown, he should express his opinion, with reasons, to the superintendent. Should the superintendent decline to take action in the matter, it is not the judge's business to do so. In far too many exhibits the judge is expected to perform not only his own duties, but those of the superintendent. If superintendents were more careful in their work, there would be far less criticism and dissatisfaction. C. H. HINMAN,

Colorado Agricultural College, Fort Collins.

EXPRESS MONOPOLY VERSUS THE PEOPLE'S PARCELS POST.

The American people for years have been demanding of Congress a parcels post, but the express monopoly has always defeated this reform. Years ago, when he was postmaster-general, Mr. Wanamaker declared that there were just four reasons why we did not have parcels post, and these reasons exist to-day:

1. The American Express company.
2. Adams Express company.
3. Southern Express company.
4. Wells Fargo Express company.

Now if the people can be misled into a demand for penny postage on letters, this will give an excuse for further long delays in Congress in granting a parcels post."

If the demand for parcels post can be also further befogged by a controversy over postage rates on magazines and periodicals, the chances will be still better of longer delay in the parcels post."

The public has been reasonable and long suffering in this parcels post proposition. It has only asked that congress establish a small trial of limited parcels post confined within a territory of a few postoffices. Then if that experiment works out satisfactorily, go in for a universal parcels post throughout the United States, the same as all other civilized countries enjoy."

The new Taft tax on periodicals, now again proposed in a new guise, may therefore be the last nail in the coffin of parcels post."

SOAKED FEED.

We are asked about soaking feed. Some of our very best feeders have practiced this continuously for many years with success. Experiments at the Iowa and Kansas Experiment Stations showed that soaking corn is about equal to grinding it and much cheaper. It is usually soaked about twenty-four hours, not long enough to permit it to ferment, as it would injure it for food by so doing."

Elkhart Buggies

are the best made, best grade and easiest riding buggies on earth for the money.

FOR THIRTY-SEVEN YEARS

we have been selling direct and are **The Largest Manufacturers in the World**

Selling to the consumer exclusively. We ship for examination and approval, guaranteeing safe delivery, and also to save you money. If you are not satisfied as to style, quality and price you are nothing out.

May We Send You Our Large Catalogue?

Elkhart Carriage & Harness Mfg. Co.
Elkhart, - - - Indiana



HOME BEAUTIFUL

Conducted by Georgie Middleton Fisher

BROOM FOR THE STOMACH.

The French have a saying that "parsley is a broom to sweep the stomach." Lettuce is a nerve food. Radishes build tissue and are rich in phosphorous, also in iron.

Horseradish contains a higher percentage of sulphur than all the other vegetable roots, spinach ranging next in value. Spinach also contains a large proportion of iron.

A mayonnaise dressing with lettuce is especially desirable for thin people, but for the over plump French dressing is to be recommended. The action of vinegar on the digestive organs, however, is not to be considered. The acid of lemon juice is preferable.

While apples are a most excellent fruit for brain building, which phosphorous aids in, the humble pumpkin, desecrated to the use of pie and jack o' lanterns, holds the prize. Pumpkin rates 2.79 in phosphorous, while the apple is but .45.

When in search for this special element take up a pumpkin diet. But as winter squash would stand the same analysis, it can be used as a vegetable in many varieties and thus the needed phosphorous supplied. Cucumbers rank next in phosphorous value to pumpkin, being 2.08.

TREATMENT OF STAINS.

For grass stains, rub with molasses and wash as usual.

For blood stains, saturate in coal oil a few minutes, then wash in cold water.

For cream stains on fine linen, dampen with household ammonia, lay fresh blotting paper on top and iron lightly.

Cocoa and chocolate stains should be soaked first in cold water, then boiling water poured on and washed.

For mildew, rub with raw tomato, or lemon juice, sprinkle with salt, and lay in the sun. Repeat if necessary.

Red ink stains should be covered with melted tallow and left undisturbed for a couple of days. Then wash in very hot, clear, rain water.

For white spots on furniture, use spirits of camphor, polish well.

To clean a bottle which has contained oil, fill with ashes and place in a kettle of soft water. Boil an hour.

For vinegar stains in cruet half fill with warm suds and broken egg shells. Shake well.

Perspiration stains on white goods should be rubbed with soap, and put in the sun.

Most people are not so much interested in the much discussed question, "How to reduce the cost of living," as they are in being able to make more money so they can live decently and comfortably.

LADIES WANTED—TO PURCHASE their groceries, soaps, etc., by our Factory-to-Family plan. We give you full value for your money and in addition the same value in premiums. We are also making a SPECIAL OFFER of FIVE EXTRA CERTIFICATES to secretaries of Clubs of ten. Write for free catalogue. Paid-Worth Premium Co., 512 St. Marks Ave., Syracuse, N. Y.

A woman who has suffered long from insomnia has made a discovery which she has never seen in any chapter of advice on this subject. She often wakes in the middle of the night with a nervous craving which is not hunger, but which she formerly strove to satisfy with food. Now she eats an apple and drinks the juice of one or two oranges. The acid in these fruits seem to "go to the spot" as nothing else does, besides which they have the advantage that they can be placed by the bedside on retiring, where they can be obtained later without getting up. The apples used are not the kind so common in New York markets—which suggest boiled potatoes. They must be rather tart and firm, like the Northern Spy, and sometimes it takes diligent search to find them. The oranges, too, serve the purpose better if they are not sweet.

The idea that coarse bread is a cure for every ill seems to be on the wane. We used to be exhorted to consider the peasant, how he thrives on unbolted bread and other viands long discarded by those who could get anything different. But there is another way of looking at this question, and the authorities are beginning to take note of it. Instead of being strong because he eats this particular sort of food, it may be that the peasant is able to eat it only because of the unusual powers of his digestive organs. It does not follow that because he eats it and is strong, another person will become strong by following his example. On the contrary, the other person's stomach, having probably more sense than its possessor, will, as likely as not, protest against the strange viands by refusing to digest them.

A KANSAS WOMAN FARMER.

Miss Mary Best, of Medicine Lodge, Kansas, and the queen of the wheat growers of southwestern Kansas, will supply the farmers of Oklahoma with seed wheat for their next planting.

The demonstration farm department of the Oklahoma board of agriculture, has contracted to buy from Miss Best a car load of pure seed wheat, 1000 bushels, which will be shipped to the headquarters of the board at Guthrie and furnished to farmers of the state at cost. This is a part of the campaign for raising pure hard wheat in Oklahoma, inaugurated by the Agricultural and Mechanical college, the state board of agriculture, and the Santa Fe and Rock Island railroads.

Miss Best is the owner of 100 acres of fine land near Medicine Lodge and although but twenty years of age she has been engaged in raising pure seed wheat under the direction of the United States department of agriculture for several years on her Kansas farm. The wheat raised by her is the Kharkof, a variety of Russian Turkish red, which is a pure hard wheat, originally imported about twelve years ago from the province of Kharkof, Russia.

The wheat will be sold by the state and shipped from Guthrie to

applicants in five bushel lots at \$1.50 GALLEY SEVEN.—B. S.—SEPT. per bushel, this price to cover transportation charges to any part of the state. If the actual cost including transportation falls below that figure the department will refund the excess to the purchasers. The wheat was examined by experts from the Kansas agricultural college at Manhattan, and pronounced pure seed wheat.

WHY MEN SHOULD PRAISE THEIR WIVES.

Apparently there are some men in the world who would not be likely to live long if by any possibility they should be betrayed into praising their wives. The man of this description is a self-sufficient creature, who evidently believes that creation was instituted for his benefit. He is a little surprised and a good deal annoyed that things were not arranged more to his liking, but he tolerates the arrangement, not because he approves of it, but because he cannot help it.

The wife of this man is a woman whom no old maid should envy. And no old maid should ever marry this man when his wife is worn out and laid in the grave; if she does she will regret it to her latest day—that is, unless she has backbone enough to put the man where he belongs, and keep him there.

And it is never pleasant to any true-hearted woman to feel that she has to master her husband before she can live comfortably with him. The man who never praises his wife will find fault with everything on every possible occasion. It is the easiest thing in the world to find fault—easier than the proverbial sliding down hill. It gets to be a habit with some men, and they are hardly conscious when they are exercising it.

Why cannot a man show his wife that he appreciates her efforts to please him? Why cannot he praise the pudding of his wife as well as the cooking of her neighbor, Mrs. Jones? Why cannot he speak kindly of her sponge cake? Why cannot he say that the new hat is becoming to the face of the woman who loves him? Kind words make his wife happy, and no decent man ought to withhold them.

Paint Without Oil

Remarkable Discovery That Cuts Down the Cost of Paint Seventy-Five Per Cent.

A Free Trial Package is Mailed to Everyone Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powderpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much.

Write to Mr. A. L. Rice, Manufacturer, 47 North St., Adams, N. Y., and he will send you a free trial package, also color card and full information showing you how you can save a good many dollars. Write to-day.

Her cooking? Ah, what genius lies Behind each culinary scheme! Such rabbits are, such pumpkin pies, Each dish a sweetly dainty dream. It matters not what she may do, Whatever she shall mix or bake, There is not one unequal to The kind that Mother used to make!

And when at night, returning late, From business cares—and other things— I find her waiting at the gate, Or upstairs full of murmurings, I think of many a bygone day, And how my daddy used to shake, For her remarks are, say to say, The kind that Mother used to make! —Harper's Weekly.

THE MAKING OF A BED.

We moderns have much to be thankful for—the labor-saving devices which lighten the toil of men and women—the quick modes of travel by which we arrive at our journey's end, very much as a woman reasons, by jumping at a conclusion.

An old lady said that we, of this generation, ought to be thankful for two things—we have not to listen to long sermons nor to make feather beds. It fills one with wonder to read of the ancient bedsteads on which our forefathers slept. The huge, carved, gilded inventions which must have cost a small fortune to buy and furnish, and must have taken at least a half dozen men to lift! They surely were not moved every week when the sweeping was done. When we think of the straw mattress which was the foundation of the bed proper—the mass of feathers which rose above it like a small mountain, the great bolsters or pillows which propped the night-capped heads of our ancestors—the heavy quilts and coverlets which weighed upon their tired bodies like a nightmare, why, we do feel thankful that they have been cut up and made over to suit modern requirements, like the intricate sermons with the introduction—firstly—secondly, and thirdly—ending with a lengthy conclusion. These have been re-written and shortened to suit our restless, precocious and over-taught brains. A little boy went home from church and said to his mother:

"Mr. Hall only told three lies this morning."

"Hush child, he speaks the truth." "No, he tells lies every Sunday, 'cos I count 'em. First lie, second lie and third lie, that's what he said this morning."

But to return to beds! We have heard that in some countries even yet, a ladder is provided to ascend to the summit of the bed before the plunge is taken into the sea of feathers. Provided the mercury is below zero, the sleep may be sweet, but when July and August weather comes, surely they take refuge on the straw and consign the feathers to the attic.

In contrast to this the eastern way is simple. To mount to the flat-roof of the house, to offer one's evening devotions under the stars and then to fold a rug around the body and silent-seems an ideal way of resting. There

CACTI FREE.

10 specimens free with each \$25 order. Dealers take notice—order at once.

Mrs. S. I. Pattison, Wholesale Collector Cacti, Mesilla Park, New Mexico.

is no airing of sheets and quilts in the morning—no feather bed to beat into shape—no ornamental coverlid and shams to keep white and smooth.

On the other side, however, we ask "does the easterner sleep without a pillow? Does he sleep in the clothes he wears during the day?"

We come back to the old lady who said we ought to be grateful for the beds of this generation. They are a happy medium between the stately four-posters with its canopy and curtains and the simple but doubtful rug of the eastern.

The brass or iron bed is preferable for various reasons, while the camp bed with its cosy flannelette sheets and eiderdown comforter leaves nothing to be desired in the way of simplicity and comfort. In the modern bed the most important factor is the mattress, and great care should be taken in selecting one. It is better to pay ten dollars for one which will be comfortable than to pay three for one which will be lumpy in a few weeks. We all have memories of lying on numpy, bumpy, lumpy things which gave us pains in our backs and sides. When we consulted the doctor, he found our hearts, lungs and spines working harmoniously, then he asked "What kind of a mattress do you sleep on?"

"Oh, a horrid one, I found a stick in mine the other morning, it had been pressing against my back all night. I thought I was paralysed."

"Ugh! Go and get a good one and report to me in a week if you are no better."

We got a good mattress and did not need to report to the doctor.

Linen sheeting is better than cotton, for it is cooler and is said to retain heat longer. It also grows whiter with age and looks firmer and has more gloss when laundered.

Quilts and comforters should be as light as possible. For that reason the eiderdown is the best, but the ordinary comforter filled with picked wool is good.

In making a bed, one can use individual taste as to the placing of pillows and the spreading of the counterpane, whether it shall be "tucked in" or shall hang over the side of the bed. There is no bed more inviting than one with the pillows ready to receive the sleepy head, no shams, and the comforter and sheet rolled neatly against the under side of the pillow ready for the tired body.

A LOVER'S WEDDING CAKE.

Four pounds of flour of love, half a pound of buttered youth, half a pound of good looks, half a pound of sweet temper, half a pound of self-forgetfulness, half a pound of powdered wits, half an ounce of dry humor, two tablespoonfuls of sweet argument, half a pint of rippling laughter, half a wineglassful of common-sense.

Then put the flour of love, good looks and sweet temper into a well-furnished house. Beat the batter of youth to the cream. Mix together blindness of faults, self-forgetfulness, powdered wits, dry humor into sweet argument, then add them to the above. Pour in gently-rippling laughter and common-sense. Work it together until all is well-mixed, then bake gently for ever.

SCRAPS.

To Loosen Glass Stoppers.—There are several ways of loosening glass stoppers. Pour round the mouth of the bottle a little oil, and in an hour or two if you cannot move the stopper place the whole bottle into warm water. Remove it, and gently tap the stopper on either side against glass, when you will find it will come out easily. To avoid the same disaster happening again be careful to twist the stopper round as it fits into the mouth of the bottle.

To clean feathers, make a lather of soap and water, then dip the feathers in and out of the water until clean. Next cover a board with flannel, and beat the feathers up and down until all the fibres are fluffy. To curl the fibres after cleaning, hold in the left hand with the fibres lying over the forefinger of the same hand; then take a blunt knife of a paper-knife and raw under the fibre from the centre to the edge.

When boiling milk or making a milk pudding, place a wooden spoon in the pan. It will prevent the milk burning or sticking to the pan.

To prevent sausages breaking in frying put them into a saucepan and bring gently to the boil. Take out and fry when wanted.

When rugs are to be beaten, fasten them to the lines with the largest sized safety pins.

THE TOOLS THAT ARE LEFT TO DECAY.

As I ride through the land, And search calmly, first hand, For the friends which have helped me to win,

Many such do I spy, But scarce wink an eye, Though others exclaim, "What a sin."

In field and in yard, By the road, on the sward, Farm tools I observe on the way: And new tools apace I shall sell to replace These tools which are left to decay.

There's a mower I sold But the last year; "good as gold," That machine when Smith took it away, But mid rag weeds and grass, And snow banks, alas! It has tarried for many a day.

Now, loaded with rust, And littered with dust, It will soon help the junk man "make hay," While I'll sell a new tool To the consummate fool Who has left his machine to decay.

In the road west of town, Is a binder which Brown Purchased only two short years ago. He was pleased as could be, And returned to tell me: "She's a daisy, as no doubt you know."

Now, deck rotted out, Canvas scattered about, Reel broken, it stands there at bay, While Brown says 'twas no good, Poor metal, poor wood," Naught is proof against rust or decay.

ODDS AND ENDS OF INTEREST TO OUR PEOPLE.

THE TRUE REFORMER.

He stood upon the world's broad threshold; wide
The din of battle and of slaughter rose;
He saw God stand upon the weaker side,
That sank in seeming loss before its foes;
Many there were who made great haste and sold
Unto the cunning enemy their swords.
He scorned their gifts of fame, and power, and gold,
And underneath their soft and flowery words
Heard the cold serpent hiss; therefore he went
And joined him to the weaker part, Fanatic named, and fool, yet well content
So he could be the nearer to God's heart,
And feel its solemn pulses sending blood
Through all the wide-spread veins of endless good.

THE KIND THAT MOTHER USED TO MAKE.

Her smiles? Ah, they are mighty sweet!
They'll fill my days with sun and shine,
They gild the paths before my feet
With glory golden and divine.
They fill me with ambitious fair
For tasks immortals undertake.
And spur me ever on, for they're
The kind that mother used to make.
Her eyes? Ah, they are deeply blue.
How I rejoice to watch their light
As they flash on care and rue
And drive all worry out of sight!
And when she uses them—ah, me!
To stir me, how my pulses quake.
For they're agin the kind, you see,
The kind that Mother used to make.

ITEMS OF INTEREST.

Raw beef bones should never be thrown away; for, broken into small pieces, they make an excellent foundation for soup.
If your milk pan or any utensil holding cold liquids has a small hole in it, melted paraffin is a good remedy if the soldering stick is not handy.
To peel a large quantity of onions without discomfort put them in a pan and pour a kettle of boiling water over them; then peel them at once.
When ironing cloth seams rub each on the inside with yellow soap before pressing with the iron.
Next best to having a thin felt under your carpets is to have several thicknesses of newspaper.
Rice water should never be thrown away. It makes excellent stock for vegetable soup.
To keep taffeta silk from cracking soften by ironing with a hot iron before making up.
Natural wood kitchen tables and sink boards can be kept cleaner if you rub them with a cut half of a lemon.

Wash and scrape carrots, cook until soft in boiling water, pour over thin cream sauce, and pour the whole over a hot broiled steak, serving at once.

To remove the odor of fish or onions from pans, wash in good suds, then place pan inverted over flame of gas range or put in hot oven for a few minutes.

Before taking nauseous medicine, such as cod liver oil, or anything with a strong taste, chew a small piece of lemon peel, and the disagreeable taste will not be noticed.

PARAFFINE LINED CISTERNS.

The results of the experimental paraffine lined cement cistern for cider and vinegar storage are so gratifying that a short description of the process of coating a cistern with paraffine is given below.

First, thoroughly clean the cistern. Then apply two coats of cement, in water. These coats may be applied on successive days. After the second coat has set for at least 24 hours, the paraffine coat may be applied as follows:

Heat the paraffine to a temperature slightly above the melting point, by means of a little gasoline stove. Now apply a thin coat of paraffine by means of a cloth or paint brush. The coating should be well rubbed before it starts to solidify, but it should not be disturbed after the solidification has started. The bottom of the cistern should be coated last. The workman should work from a suspended platform while finishing the coating of the bottom, as the coating is injured by bruises such as the heels of shoes on the bottom of a ladder are likely to cause.

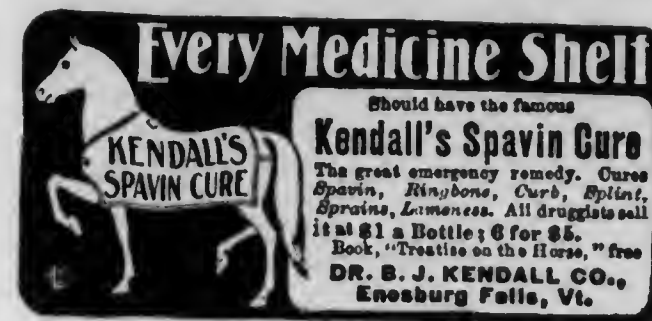
A small paraffine lined cement cistern has been tested by the Colorado Agricultural College, and the results are all that could be hoped for, both from the standpoint of the vinegar, which was made in the cistern, and that of the cistern itself.

H. B. BONEBRIGHT,
Colorado Agricultural College, Fort Collins.

FREE TRADE IN LEMONS.

The Tariff Reform League has issued an article in favor of taking the duty off lemons. Foreign-raised lemons imported pay a duty (or tax) for the support of the United States government of 1½ cents a pound. This about equals the county, state and national taxes paid by United States growers of lemons and does not place the imported lemons at any disadvantage in the American market. It is a square deal all round. But the Tariff Reform League, working in the interest of the foreign lemon grower, wishes to give him an advantage over our own citizens by depriving the United States government what little revenue may be derived from this duty on foreign lemons and to have our home-grown, taxed-raised product to compete with the foreign lemons that they wish to come in free and untaxed. The Tariff Reform League idea is to fill up this country with foreign productions and to injure our own industries and then abuse everybody and everything that may be prosperous. Lemon raising is a farm industry that is protected by a tariff of 1½ cents a pound. If farmers wish this

BLOODED STOCK for September.



duty removed, they ought to say so for themselves.

THE HORSE REMEDY THAT EVERY DRUG STORE SELLS.

A very trivial thing oftentimes causes a horse to go lame, such as a slight wrench, a sprain, a cut, etc. These are things that are to be expected. They are liable to happen to any horse at any time. The lameness may cause inconvenience but it is not otherwise serious. All that is necessary in many such cases is to be ready to treat promptly with some efficient remedy.

In this connection it is a suggestive thought that for over a score of years one could hardly speak or think of a horse remedy without calling to mind Kendall's Spavin Cure.

Perhaps no other single horse remedy has ever been so generally used or had so great a reputation. Almost everybody who owns a horse has heard of Kendall's Spavin Cure. Its popularity has not been confined to one locality or state. It is national, even world-wide. It is found on the shelves of well posted horse owners in many countries.

It is worth while to remember that Kendall's Spavin Cure has been in use for nearly half a century and its popularity is greater now than ever before. If it had not stood the test it would have been out of mind long ago.

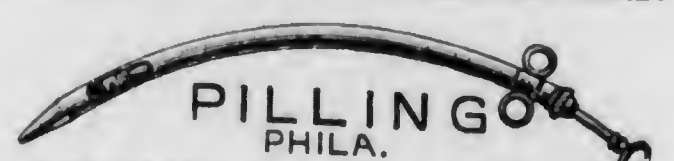
This old favorite horse liniment is on sale at drug stores everywhere. The excellent horse book entitled "A Treatise on the Horse and His Diseases," can also be had free at drug stores or by writing for it to the publishers, the Dr. B. J. Kendall Co., at Enosburg Falls, Vermont.

STUMP PULLERS

Warranted the most practical machine made. One man can lift 20 tons. Made in 3 styles, 10 sizes. Screw, Cable and Hand Power. We manufacture a TIE DITCHER and best CORN HARVESTER ever made. Cuts two rows with one horse. Agt's wanted. Write for catalog. Box 22, H. L. Bennett & Co., Westerville, Ohio

I Make the Best Scale on Earth

And I can prove it. Forty-five years ago I commenced selling scales to the user and I have never been equalled and never will be. I have been exactly as represented. I have patented the only reliable FIFTEEN STONE SCALE, complete with steel frame, counter beam and beam box without extra charge, sold at a fair price. My scale is not cheap, but BEST. I will send you full information, a scale on approval, or book, "Reasons for Owning a Scale" if you address "J. J. H. P. The Scale," 108 C St., BINGHAMTON, N. Y.



Impregnators for Mares and Cows From \$2.50 up. Artificial Impregnators are "Easy to Use." Write for pamphlet. GEO. F. PILLING & SON CO., Philadelphia, Pa.

BLOODED STOCK for September.

TAKE CARE OF THE FOAL.

Treat Him Well in Early Life and He Will Be a Better Horse.

The season of the year will soon be here when a little extra care of the foal will repay the farmer for his trouble. At present the pasture is fresh and abundant and the foals will do all right, but now is a good time to prepare them for the more trying time ahead. A foal should be taught to eat meal as early in life as possible and receive a regular supply twice a day. Even though the dam is not working this will pay, more especially in the case of the heavy draft colts. Then when the hot weather sets in the foal should be brought to the barn during the heat of the day where he will escape not only the heat, but what is still harder on him, the flies.

While in the barn the colts can be fed thin meal ration and turned out when evening comes. Foals treated thus will make a much better growth than if made to run at pasture (too often poor pasture) and spend their energies fighting flies. When we reflect that it has been good feed and good care through a great many generations which has largely resulted in our present high class horse, it will be very apparent to all that these desirable characteristics cannot be maintained and perpetuated by reversing the conditions under which these properties have been developed.

When Weaning Time Comes.

The foal well cared for during the summer will do much better when weaning time comes. He will know how to eat meal or grain because he has been used to it all summer. His stomach will have become somewhat enured to the digestion of solid food, and when deprived of his dam's milk he will grow right along and receive no back-set as happens to all too many foals at this very critical period of their lives.

It is not an unusual sight in the fall to see foals which have been suddenly deprived of their dam's milk and thrown on their own resources for a living, which have become very much emaciated; poor, little, pot-bellied, ewe-necked, dejected looking creatures with rough starving coats, and ever appearance of animals about to die of old age or hard usage, instead of fresh young creatures on the very threshold of life. A foal in this condition has lost something which can never be made good to him again, no matter how carefully he may be looked after. There has been an arrest of growth and a consequent loss of development which is gone forever. And I care not how good an animal such a foal may develop into, he will not be quite so good as if he had not received any set-back in early life.

Purposely Careless.

Many farmers are purposely rather careless of their colts. They claim that if they have to rough it to a certain extent when young it will make them tougher and harder horses. While no doubt many a real good horse has been subjected to hard conditions in early life, he is not good because of that treatment, but rather in spite of it. If he had not been possessed of a vigorous constitution he would have died under the ordeal, and the fact that he is alive proves that he is good, but he would have been better in every way had been

cared for in early life.

Lastly, the foal should be broken to the halter during the first few months of its life. It can never be done so easily nor efficiently in later life. The little creature is not able to make any serious objection to the halter and yields readily to the restraint, and if broken in early life it will never forget the lesson nor will it ever likely become a "puller" that will smash his tie and break loose in the barn, or when tied outside, a most vicious habit which reduces the value of a horse to a very great extent.

FAIRS AS EDUCATORS.

Rightly conducted fairs are great educators, the most valuable days' outing for farmers and their household available to them. We always encourage old and young, male and female, to spend a day at the local exhibition. Female members should attend as regularly and they should be considered in the arrangements quite as much as the males. Indeed, the societies that have made their exhibitions interesting to women and children have been most successful. If we had our way we would have some ladies on the directorate of every agricultural society.

Directors should be increased to at least double the present number and four or five should be ladies. Ladies might very properly have charge of these departments, art, fancy work, flowers, the dairy, domestic science and manufactures. The Woman's Institutes might be given the privilege and power to elect from their membership say five ladies to represent their interests on the Exhibition Board. This would have a tendency to unite more closely the two organizations in a common cause and in our opinion would widen the circle of interest in the annual exhibition.

We have long been impressed with the idea, too, that the children and young people are not interested in and given the consideration they should receive at the West Durham Fall Exhibition. Boys and girls are this country's greatest asset—they will be the men and women of the near future. Thousands of dollars are spent for books, schools and teachers to educate them. Why not give more encouragement to them to exhibit the results of their home and school work? They should have a part in adding to the attractiveness of the show. Every school should give instruction and practice in physical training, calisthenics, the various drills and marches, and should also teach patriotic choruses. These could all be incorporated into the fair program and be made of universal interest in every community with splendid spectacular effect. The children should be offered inducements, too, for contributing largely to the practical features of the show with school exhibits—specimens of writing, map-drawing, botanical collections, leaves, flowers and plants, weeds, insects and woods, etc. Greater interest should be given to apple judging and naming, cooking, butter-making, sewing, etc., by girls under eighteen. The suggestion was made at one of the annual conventions that a juvenile board of directors should be elected to take the oversight of a special exhibit of the work of schools, and products of orchard and garden to be shown separately.

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ate from the main exhibition in a big canvas tent if there is no suitable building. Whatever can be done to interest the young people in the exhibition should be done. Boys usually take an interest in poultry and they might have some part in this department of the exhibition.—The Statesman.

FARMERS AND THEIR AUTOS.

Recently there has been considerable pessimism expressed by country bankers over the alleged reckless extravagance of farmers in buying automobiles, and some State bankers' associations have gone so far as to express, in official resolutions, their disapproval of farmers taking their money out of the banks to buy machines, intimating that credit will be refused those who try to borrow money for that purpose.

These pessimistic "warnings" by the banks are so uniform in character, and are sent out with such marked regularity as to arouse the suspicion that they emanate from a certain source, and are intended to conceal a sinister purpose. Perhaps this activity on the part of certain powerful financial interests may be explained by the report that a great trust is being formed, to take over all the principal automobile factories in the United States, and the suggestion follows that if the business can be demoralized by frightening people and thus preventing them from buying machines, the central plants can be bought for less money.

Blooded Stock does not believe there is any reason for the banks or anybody else to become alarmed over the purchase of machines by farmers. The American farmer is the most conservative business man in the country, and he is not often found guilty of mortgaging his land to get money for luxuries.

While it is true that thousands of farmers have bought autos, it will doubtless be found on proper investigation that most of them had the money in the bank to pay for them, and that very little borrowed money has been used for this purpose. The report sent out by a Wall Street agency, that farmers all over the west were mortgaging their land for this purpose, and that one bank in Kansas City held fifty-eight farm mortgages which had been placed to get money to buy automobiles, has been proven to be entirely untrue.



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Did you ever drop a lighted lantern in the barn or the wagon shed? You know how quickly the flames begin to dance about the floor and reach the wall. Every farmer has had this experience, and many have been sorry over the consequences.

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ATLAS Portland Cement Makes The Best CONCRETE

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"Concrete Construction About the Home and on the Farm" illustrates hundreds of different ways of using concrete. It will show you how to make and place the concrete mixture in the best and most economical way. It gives complete instructions and illustrates them with photographs, diagrams and plans. Send for the book now.

Ask your dealer for ATLAS. If he cannot supply you, write to

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Daily, Productive capacity over 50,000 barrels—the largest in the world



None Just as Good

can use them to a great advantage in their farming operations. A trip to town, which usually takes three hours going and returning, with a good team, can be made in forty minutes by an auto, a saving of nearly two and a half hours, and the team can be kept at work in the field meantime. This saving of time and the labor of a team and man in the field is well worth while and highly commendable.

Thousands of autos are used every day by dairymen, fruit-growers, and truckers, to deliver their produce to market, and these machines, loaded to the guards, may be seen daily on the streets of market towns in every State, east, west, north and south.

Many farmers also use their autos for power to run separators and other light machinery on the farm, as it is the cheapest power that can be supplied. And if, in addition to these needs, the farmer uses his auto to take his family to town, or to church, or to visit friends with comfort and celerity while the work-teams are resting, he is merely showing additional evidence of his conservative business judgment and good common sense, which we may safely continue to trust.

We take the view that a man has a perfect right to spend his own money as he likes, provided always it is not to the detriment of the public. Some bankers take the opposite view.

Spreaders, harrows, hay rakes, Plows, loaders, Land Sakes! Tools of every description you'll see; Many fortunes they cost, Most of which have been lost Just as though, like air, they were free.

One short hour of time At the cost of a dime, Would have sufficed to store each away, Kept it bright as a pin Till 'twas needed again, Yet here and there are left to decay.

Could man purchase a thrift, Nature's a most precious gift, I suppose he would value it more; Would give it a glance, E'en use it, perchance, In that way save dollars galore.

But why need I weep, Or lessen my sleep, Or strive this destruction to stay? It means profit to me, More dollars I see In each tool that is left to decay. Orio L. Dobson in Farm Improvement News.

A pig never squeals because he has too much to eat. The man who lets his plows stand in the field during the winter should remember that manufacturers have not yet discovered iron and steel that will not rust.

Grafting is an art which the fruit-grower does not practise alone.

A run-down, weedy garden always is the sign of an overworked woman, or a lazy man, or both.

Children learn to talk by imitation—they learn to swear in the same way.

Pity the farmer who undertakes dry farming in the arid west, unless he has twice as much capital as he would need in the land where the rainfall is normal, unlimited courage, and faith that will move mountains. The more we make a noise like an oyster the less trouble we shall have to overcome.

The man who markets his products only when he has nothing else to do, will never get the most out of his farm. The moments spent in reading market reports are golden.

Keeping the windows tightly closed to keep out the cold, puts checks in the doctor's bank-account.

Hardening a child by exposing it to bad weather, or giving it tasks beyond its strength is a species of cruelty which fattens the graveyard.

A New York farmer who was running for road-supervisor, boasted that he was so busy that he had not had time to wash his face for over six weeks—but even that did not elect him.

If the test for entering heaven were made on the truth of reports made to the assessor, it would be a mighty lonesome place up there.

THE BLOODED STOCK DAIRYMAN AND POULTRY RAISER



BUT A FEW PRESENTS.

The "burning love" we read about
To some may seem quite funny,
But the love we fear
With Christmas near
Is the kind that burns for money.

T. E.

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Number VIII

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OF INTEREST TO YOU

NOVEMBER EDITORIAL PAGE.

The returns from the recent general elections show the discontent of all classes of citizens in a manner that leaves no doubt that our population desired a change. It shows, to our mind, that the high cost of living is, in a large measure, due to tariff conditions, and it will be up to the Democrats and Progressive Republicans to revise it downward in the right direction—i. e., it must be specialized, particularly on the necessities of life—those articles or food commodities that are in daily general consumption by the masses—when you give the people a chance to express their opinion by ballot, it is usually to the point. We need a change—a new broom usually sweeps clean. The recent Democratic sweep cannot be called a complete victory for the Democratic party, but it clearly tells the party in power that they have been untrue to the last Republican platform, and they must abdicate in favor of an overwhelming Democratic majority in the next National House of Representatives. It must be borne in mind that the U. S. Senate is not Democratic as yet, but with the aid of those grand old Republicans of the West, who are called progressives by their own party, for the sake of distinction, but who are at heart in full accord with any measure that tends to benefit the whole people, even if enacted by Democratic votes. What this country wants is a good, strong third party to keep the old parties right up to the breast plate. Will we get it? We hope so.

LOWER PRICES OF MEATS.

Dr. Wiley Says It's Merely a Deliberate Manipulation of the Market. From the N. Y. Sun of November 17th. Comments by the editor. Washington, Nov. 16.—Dr. Harvey W. Wiley, pure food expert of the Department of Agriculture, is pessimistic about the outlook for lower prices in food supplies. Said he today when questioned in regard to the present fall in the wholesale quotations of beef and other meats:

"The interests which manipulated the prices upward have temporarily released their hold upon our throats for the purpose of getting a fresh grip. This so-called reduction in the price of meats is merely a deliberate manipulation of the market, just as the increase in prices was unjust, unreasonable and uncalled for by conditions prevailing throughout the country. The prices were fictitious when they reached the top notch because they were forced to that high level arbitrarily by the interests. The alleged reduction also is fictitious because it is not a reduction in fact but mere market manipulation deliberately planned to meet the selfish ends of the interests who have dominated the markets for years.

"If you do not believe that the so-called reduction is fictitious go into the markets and try to buy a pound of beef. Developments will show that the interests are after some one. There may be some independent movement they hope to drive from cover or take into camp. The hands of the interests at our throats simply got tired of holding on. They have relaxed their holding temporarily so that they may get a better and fresher grip."

Secretary of Agriculture Wilson had this to say in regard to the announced reductions by the packers: "The farmer with cattle on his hands must pay \$35 a ton for his hay instead of \$30, the price of a year ago, and rather than do this he is sending his cattle to market. This has caused a flood of cattle in the Chicago market and accounts for the sudden tumble in prices. This tumble is abnormal and will not be permanent. However, a plentiful corn crop and plenty of grain will enable the farmer to feed freely and we should

get a lower level of prices. Lower prices are certain to come provided that somewhere between the farmer and the consumer there is no combination or agreement to keep the prices up."

Philadelphia, Nov. 16.—Wholesale meat dealers declared to-day that there had been no decrease in the price of beef and that there would not be any in the near future. Most of them emphasized this declaration by raising the price of beef 50 cents a hundred pounds to the retailers this morning. This, however, did not cause a corresponding increase to the consumers. The wholesalers are angry about the statements of the packers that the price of meat is going down, saying that it hurt their business, while the retailers are sore because their customers have demanded lower prices for meat, while they have to pay more for it than they did several weeks ago.

Pittsburg, Nov. 16.—The prices of fresh and smoked meats in Pittsburg to-day began a decline and this evening were from 10 to 20 per cent. lower than yesterday. Live hogs to-day sold in Pittsburg at \$7.85, against \$12 a short time ago.

Kansas City, Nov. 16.—Declines of 50 cents a hundred pounds in the prices of sheep, 15 to 25 cents in hogs and 15 to 25 cents in cattle took place at the stockyards to-day, owing to moderately large receipts and general confidence that cheap corn will result in largely increased supplies of fat stock. Buyers of the packing houses were indifferent and bought no more than was needed for current orders.

The reader will note what Dr. Wiley says, and we hope the reader will believe Dr. Wiley, whom we have every reason to think sincere in his statements. As to the remarks of Secretary Wilson, we would like to know where they are paying \$35 per ton for hay. The editor of this sheet thinks Mr. Wilson dreamed a \$35 "Hay Dream." The fact of the mat-

BLOODED STOCK for November.

ter is this. The protected "big boy interests" have arrived at the stage where they do not need it. The "little boy interests"—i. e., infant industry class—do need protection, but only to a moderate degree. Tariff is a tax.

Editorial N. Y. World., Nov. 17.

NOT BY CORN ONLY.

If it is the big corn crop alone that is bringing down the price of meats, how is it that its influence is felt before it is out of the shock and why have provisions grown steadily higher since 1906, when the corn crop was almost as large as it is this year.

The Beef Trust says that abundant corn and high prices for meats have stimulated the growing of live stock. Cheap corn appeared only recently and it takes more than a month to turn a corn crop into pork or beef. Bumper crops ought to have a depressing effect upon the food market, but as they have not always exerted that influence it is to be presumed that other causes have been at work.

Extortion in food has been coincidental with the stand-pattism in politics. It began when the stand-patters won their first great victory, it has increased steadily through all the years of their ascendancy, and the turning-point was reached only when they met at the hands of both Democrats and Republicans an overwhelming reverse. The trusts and combines stood pat as long as the people did, and no longer.

The editor of Blooded Stock believes this, and if it meets with any unbelievers among its readers, we would like to hear from them. In fact, we want to hear from any man or woman who has ideas and is not afraid to express them in the interest of all. We have stock jobbers in Wall Street and food jobbers in joint combination. Which are the most? We think the latter.

ALFALFA COMES EAST.

When Farmer Coburn first advocated the planting of alfalfa he could scarcely have conceived the wide extent of cultivation to which he was giving encouragement. He had seen the plant growing in the rich lands of the warm Southwest, where it had been introduced by the early Spanish settlers, and believed that its growth under similar weather and soil conditions in Kansas was not impossible. Actual trials routed scoffers and Coburn has lived to see it the greatest forage crop of the State. But in all his pride as a discoverer he surely never could have dreamed that it would be the crop of the city agriculturist to revive New England's farms.

The alfalfa cult first spread to Illinois and Indiana, and with bags of seed came shipments of inoculating soil from Kansas fields to establish the crop. It spread southward into Oklahoma, and the new State received it so cordially that it named one of its counties Alfalfa. With the slogan "Alfalfa seed from Alfalfa county," the Commercial Club has undertaken to beat Coburn and his State in the new crop propaganda. The most valuable carload of Oklahoma products that ever left the State for Eastern markets is described by the St. Louis Globe-Democrat: "There were more than 600 bushels

Page Three.

and the prevailing price, ranging around \$7.50 a bushel, made the car worth about \$5,000. As a car of wheat is generally valued at about \$1000 it is easy to see that the most valuable Oklahoma product that could be put into one car would be alfalfa seed."

How to Get the Best Possible Seed Corn.

If in one's community there is not an experienced and honest corn breeder, the best place to obtain seed corn is from a farm in the neighborhood that was planted with a variety that has generally proved most successful in that locality.

A person can afford to pay an extra price for good seed and it will often prove economical to secure enough superior pedigreed seed from a near by corn breeder to plant a few acres, even if a fancy price has to be paid for it. Four or five dollars a bushel may prove a most profitable investment, other things being equal.

Seed corn is not good simply because it will grow, but to be first-class it must be

(1) Well adapted to the seasonal and soil conditions where it is to be planted.

(2) Grown on productive plants of a productive variety.

(3) Well matured, and preserved from ripening time till planting time in a manner that will retain its full vigor.

The importance of the requirements above enumerated has been demonstrated experimentally by corn experts.

At present we are not concerned with testing, cultivation, etc., only with getting the right start and an early one.

Ears with large cobs are to be avoided. Dent ears should yield about eighty-three to eighty-five per cent. of shelled corn. The percentage of shelled corn to the ear can easily be determined by separately shelling several ears of corn, weighing corn and cob of each and figuring the percentage. If too large a percentage is cob discard that type of ear.

Other Grains.

Good seed wheat, oats or barley can best be obtained by looking up the list of awards from county and state fairs. The decisions of judges rendered at these are a safe guide and no mistake will be made by buying seed from the farmer who took first premium at the nearest fair. If only a few bushels are wanted these could be contracted for and secured in the spring. A farmer in this vicinity bought a hundred bushels of select oats from a seed house, paying \$90 for the same, and he claimed that he made money on the transaction.

Potatoes.

Some of our subscribers may wish to try potatoes. The varieties recommended are the Early Ohio, Rural New Yorker, No. 2, Sir Walter Raleigh and Carman No. 3. From the winter's supply of either of these varieties, if they are pure and free from scab, one ought to be able to select enough true type, to plant a seed patch at least. Take, for instance, the Early Ohio. Select those for seed that are quite smooth; oval in shape (2 1-2 by 4 inches); weighing about eight ounces. Care in selection of seed may, in a short time, result in having potatoes that one's neighbors may want for seed. There is profit as well as pleasure in raising the best of everything, and this can only be done by taking care of the seed question.

SECURING SEED FOR NEXT YEAR.

Now is a good time to secure seed for next year's planting. If a farmer has plenty of seed of his own raising all that is necessary to do is to see that the best is selected and properly stored for the winter. Seed grains of all kinds must be dry before final storing, kept dry through the winter and be provided with a good circulation of air. Without the latter they are liable to heat or mold, or both. Proper precaution is very necessary if one wishes to raise good crops. Let us suppose that a farmer is proposing to specialize on some one kind of crop next year and that he is not satisfied with the variety of seed that he has been using. He should begin at once to look about for a kind and

SELECTING SEED POTATOES.

Discard the Small Potato and Pick Out the Good Ones.

Breeding plants is becoming as great and important a science as ever the consistent breeding and improvement of live stock has been. A few years ago, the popular mind troubled itself little about such things. Not that it was by any means a new thing, for there were always men who realized this, and practiced it, too. Many years ago, old Aberdeenshire farmers, as well as others of a progressive type, used to select their seed with care, and progress in the acquisition of new varieties were constant. But the public never really grasped its true importance. To-day, work along these lines is developing on every hand and farmers are beginning to realize the possibilities there are in it. A few years ago, the practice of saving only the smaller potatoes for seed was a common one. Then the importance of using good, healthy, plump specimens only was advocated. Recent investigations indicate the wisdom of going still further in this work, and using only good potatoes from the most prolific and healthy looking hills. Here is how to do it:

When digging the potatoes dig up a large number of hills, and leave the potatoes lie for the time right where they were dug up. Then fix a certain number of hills in your mind, which will be selected as the ones from which to choose seed for the following year. Go all over the plot and pick out the number which look the best in all respects. Select from these the best specimens and keep them as seed for the following year. This is a simple matter. It is only following the system by which a progressive and careful breeder of high-class pure-bred stock endeavors to select his breeding animals from each successive group of youngsters, but it is a plan which can be followed by any farmer, and it will give such results as will encourage him to extend the same system to every department on the farm.

ANENT CLIPPING HORSES.

Dr. J. S. Standish, Prof. Veterinary Science.

When clipping horses, judgment on the part of the owner is required as sometimes this practice is beneficial and at other times harmful. Horses that have smooth, fine, short coats are neither improved in appearance, nor physically benefited by clipping. Horses with long, rough coats are improved in both appearance and physical condition by clipping, providing they are comfortably housed and blanketed when standing either in or out of the stable.

When proper care is given the horse, clipping increases the action of the circulatory, respiratory and digestive organs with consequent greater vigor in the animal. This improvement in vigor is evidenced by the lessened tendency to congestion or stocking of the legs, so common in long, heavy coated horses when allowed to stand in the stable for several hours at a time.

Clipping Heavy Horses.

A good system of clipping for heavy horses is to clip the head, neck and body, leaving the hair on the belly and legs. This is not so pleas-

ing in appearance, but it permits of easy clothing of the clipped parts and does not expose the limbs so severely to extreme cold.

Idle horses are not benefited by clipping. Farm horses if they have not shed their winter coats before spring work commences are benefited by clipping in the manner already given. Road horses, if not fine coated are improved by clipping, providing they are properly cared for. For the sake of appearance road horses should have the belly and limbs clipped. They should never be left standing outside in the cold, however, if clipped.

ONE MAN IN A COMMUNITY.

Since seed selection requires much care and time it may be found less expensive to operate what is called a community seed breeding farm. This is a farm where all the seed for the neighboring farms is grown. By this method well bred seed of the best quality could be produced at a less expense than if each individual farmer should do the work himself. In order to accomplish the greatest amount of satisfactory work special kinds of seed horses and machinery are required for certain phases of crop improvement. In fact, these community seed breeding farms are experiment stations on a very small scale, where new varieties are tested for their productive value for that locality.

In some localities there are certain farmers who devote their entire energies to producing pure bred seed corn, for example. These individuals will sell about one-half bushel to each of his neighbors, who will use these small amounts for an increase plot. From the increase plot enough material is produced for the general field. This plan is practiced from year to year. A small amount of pure seed is purchased each season for a new start. In this way there is but little danger of mixture. Such a practice has been found very successful in the south in improvement of the cotton crop, and the same principle will hold true with any other crop grown on the farm.

VALUE OF COMMUNITY CO-OPERATION.

Community breeding is something new in many sections of the country. A well known authority in this work comments as follows on this system of crop and animal improvement.

"Many advantages will follow if an entire community will go into the production of a particular class of animals, as, for example, driving horses. There are a thousand little details in the successful management of any business, and for the best success, mind must react upon mind. If a whole community would go into the production of driving horses and discuss the driver, his breeding care, development and education, as communities now discuss corn raising in the corn belt, in a few years every man, woman and child in that particular locality would 'know all about horses.' They would soon become skilled drivers, and, as is now the case in the famous blue-grass region of Kentucky, the community would have a reputation that would attract buyers, and a horse would bring more money than he could bring if

BLOODED STOCK for November.

he were the only one in the neighborhood. Let the whole community, as far as possible, breed the same kind of horse or other animal, so that it may win a reputation for a distinctive product, and it will not only do better breeding than it would if it were to breed many types, but the business will be vastly more profitable. Practically all the canaries of the world are bred in two villages in Germany, and no bird with a false note is ever allowed to live, so skilled have the entire village become in what might be called canary excellence. No individual breeder can equal the degree of success which is here evolved, where practically no other interest engages the attention of the community.

AN IDEAL.

In all probability, many growers make the greatest mistake in the beginning, by not having an ideal in mind. An ideal is the first step in improvement for breeding of animals or plants. The second step is to always hold to that standard of perfection. One who is constantly changing this standard is not likely to make rapid progress. It frequently requires several years to reach the desired goal, even when we are very careful in our methods. There may be times, however, when we may have to shift our position, but that can be done without losing much that we have gained by improvement in previous years. The demands of our markets must be taken into account; but at the same time it will not pay us to do extensive breeding for the general changes in market requirements. Breed for a substantial product of the highest quality and there will always be a strong demand for such product.

Tongue Slip.

Representative Washburn, toast-master at the prorogation dinner of the Legislature recently, told a story of a pastor who, coming to a new parish, got his words slightly twisted in his announcement. Said he: "I have come here to heal the dead, cast out the sick and raise the dead."

Another ministerial friend of Washburn's, speaking to a congregation, remarked: "I am sorry to see so many absent faces I used to shake hand with."

We are all in favor of good roads provided the burden and cost of making them is fairly distributed. A good road is a special delight, providing the farmer does not have to mortgage the farm to pay for it.

A Treatise on the Horse, FREE

KENDALL'S SPAVIN CURE

Thermon, Md., Jan. 27, 1900.
 Dr. B. J. Kendall Co., Enonburg Falls, Va.
 Dear Sirs:—I had a horse with Spavin. It was so serious that I could hardly get her out of the stable. I used two bottles of your Spavin Cure and she is as sound as a dollar. *Chas. J. Powell.*

Kendall's Spavin Cure
 Beats them all for Spavin, Ringbone, Curb, Splint, Swollen Joints and all Lamenesses.
 \$1 a bottle, 6 for \$5. Buy at your drug store and ask for free book, "A Treatise on the Horse," or write to—
 Dr. B. J. Kendall Co., Enonburg Falls, Va.

BLOODED STOCK for November.

THE FIFTH NATIONAL DAIRY SHOW.

The Fifth National Dairy Show was held at the large Coliseum Building in the city of Chicago.

Dairy Cattle on Exhibition.
 This show excelled all others in the number and quality of cows exhibited. Formerly the Coliseum with the cows on exhibition, but this year Annex Basement were able to house a large portion of the general Coliseum Arena was used for cows.

AWARDS.

Ayrshire.

Bulls 3 years old and over: Ryanogue Farm, Brewster, N. Y., got First; L. A. Rymann, Wheeling, W. Va., got Second.

In the aged-cow class, 5 years and over: L. A. Rymann, Wheeling, W. Va., captured First; Ryanogue Farm, Brewster, N. Y., Second and Third.

The Ryanogue Farm, of Brewster, N. Y., had the best exhibitor's herd and L. A. Rymann, Second.

Brown-Swiss.

Bulls 3 years old and over: E. M. Barton, Hinsdale, Ill., won First, and H. W. Ayers, Honey Creek, Wis., won Second, and Joseph P. Allyn, Delavan, Wis., captured Third place.

Cow class, 5 years and over: Henry Elmer, Monroe, Wis., captured First place; H. W. Ayers, Honey Creek, Wis., and Joseph P. Allyn, Delavan, Wis., Second and Third respectively.

E. M. Barton, Hinsdale, Ill., had the best exhibitor's herd, and Joseph P. Allyn, Delavan, Wis., Second.

Dutch Belted.

Frank Reed Sanders, Bristol, N. H., was the only exhibitor of this breed and therefore had no competition for honors.

Guernseys.

Bulls 3 years old and over: A. W. Fox, Waukesha, Wis., captured First place, and Wm. M. Jones, Waukesha, Wis., and M. H. Tichenor, Oconomowoc, Wis., won Second and Third respectively.

Cows 5 years old and over: W. W. Marsh, Waterloo, Ia., First; Wm. M. Jones, Waukesha, Wis., Second; A. W. Fox, Waukesha, Wis., Third. This was a magnificent class of cows.

Exhibitor's herd, W. W. Marsh, Waterloo, Ia., captured first; A. W. Fox, Waukesha, Wis., had the second best herd, and Wm. M. Jones, Waukesha, Wis., the third best.

Holstein-Friesian.

The Holstein-Friesian breed was represented by more breeders than any of the other cattle were. The competition in all of the classes was keen.

Bulls 3 years old and over: W. S. Moscrip, St. Paul, Minn., won first, with Sir Beets Cornucopia, Netherland. Hull Bros., Denver, Colo., won second, with Colantha Lass. Henry Ives Cobb, Brewster, N. Y., won third with Rockdale Perfection De Kol.

Cows 5 years old and over: A. L. Williams, Fond du Lac, Wis., won first, with Jewell Duchess; Frank White & Son, Hampton, Ia., and R. E. Haeger, Algonquin, Ill., second and third, respectively.

The exhibitor's herd was placed as follows: W. S. Moscrip, St. Paul, Minn., first; A. L. Williams, Fond du Lac, Wis., second; Frank White & Son, Hampton, Ia., third.

Mr. Moscrip, St. Paul, also won the grand champion.

Jerseys.

Bulls 3 years old and over: C. I. Hudson, East Norwich, L. I., N. Y., first; Dixon & Bruins, Brandon, Wis., second; and W. R. Spann & Sons, Shelbyville, Ky., third.

Cows 5 years old and over: C. I. Hudson, East Norwich, L. I., N. Y., first; Dixon & Bruins, Brandon, Wis., second; and C. I. Hudson, East Norwich, L. I., N. Y., third.

The best exhibitor's herd was won by Dixon & Bruins, Brandon, Wis., and the second best by C. I. Hudson, East Norwich, L. I., N. Y.

IOWA COW GREAT.

Two-Year-Old Guernsey Heifer Produces 67 Pounds of Fat in Month.

One thousand and thirty-seven pounds of milk, testing 6.45 per cent. fat, and yielding 66.9 pounds of butter-fat—this is the July record of Rouge 2d of Brookfield, a two and one-half year old heifer owned by Iowa State College. This phenomenal heifer began her record the 15th of last January. In the six and one-half months from then until August 1 she produced \$116.92 worth of butter-fat. After deducting the cost of feed this left a net profit of \$68.20. The total amount of milk produced in this time was 6778.8 pounds, and of butter-fat 362.50 pounds.

Rouge 2d of Brookfield was imported from Guernsey Island last fall. The college purchased her from the importer, W. W. Marsh, of Waterloo, Iowa, soon after she reached this country. She comes from good producing families on both sire and dam's side. The heifer began the test under a handicap, as she was considerably run down in condition owing to the hardship of her long journey.

Notwithstanding this, she has made a record that bids fair to stand ahead of anything ever before made by a two-year-old heifer. Dolly Dimple, a young Guernsey owned by F. Northrup Ames, of North Easton, Massachusetts, at present holds the world's two-year-old record. She produced 703.36 pounds of butter-fat in a year. Her highest month's record was 67 pounds. This record has already been practically equalled by Rouge 2d of Brookfield, and she has a good chance to outdistance Dolly Dimple in the year's record.

While this cow has a typical dairy form, she shows no special indications of being an extraordinary producer. It took the scales and the test to disclose that fact. There are a good many cows on every farm in the State that are doing a great deal better than the owner has any idea of. There are others that are poorer than he would like to believe. It takes the scales and tester to distinguish with certainty between these two classes of cows. The first step in improving the dairy herds of Iowa is testing and weighing the milk. The next is getting rid of the ones that do not show a respectable profit. The third is feeding and caring for the cows that are left in a way to induce them to do their very best.

—C. V. Gregory, Bulletin Editor, Iowa Experiment Station.

Holds World's Record
 The New 1910 Model
U. S. SEPARATOR
 Is emphatically the BEST
 and the only one for YOU to buy.

1. It skims the cleanest.
2. It's built the strongest.
3. It's the easiest cleaned.
4. It's the most convenient.
5. It requires least power.

The U. S. defeated all other separators at Seattle on these five essential points and

Won Grand Prize
 Vermont Farm Machine Co.
 Bellows Falls, Vt., U. S. A.

MISSOURI WINS IN JUDGING CONTEST.

At the American Royal Live Stock Show, held at Kansas City, October 10th to 15th, T. R. Douglass, a student of the University of Missouri, made the highest score in judging all classes of live stock in competition with Iowa, Nebraska and Kansas. The students from Missouri also won the highest individual score on cattle and hogs, and tied for the highest individual score on horses. The best score made by any student of any institution was that of S. T. Simpson, of Missouri, who made a perfect score in judging cattle. This is the highest score ever made by any student in any contest in the United States. The next highest score was made by an Iowa student at Chicago in 1909. T. R. Douglass, of Missouri, also made a perfect score on judging hogs. This is the highest score ever recorded in a hog judging contest in the United States.

An Automobile Cow.

"Why are all those people flocking down to Hiram Hardapple's barn?" asked the old farmer on the hay wagon.

"Hi's got a curiosity down thar," chuckled the village constable.

"That so? What kind of a curiosity is it?"

"Why, Hi's old red-and-white Jersey cow. The other night the old critter had the colic, and Hi went down with his lantern to give her a dose of cow medicine. Blamed if he didn't make a mistake and give her a pint of gasoline."

"Do tell! Didn't kill her, did it?"

"No; but, by heck, it had a funny effect. Now, instead of going 'Moo, moo!' like any sensible cow, she goes 'Honk, honk!'"



The GUERNSEY COW
 Her Dairy Products have Scored the Highest Quality and Best Color
 Full information of this fine breed of GUERNSEY CLUB, Box Y, Peterboro, N. H.

HOGS

RAISE PIGS WITHOUT CORN.

We are in receipt of an inquiry from a farmer who lives outside of the corn belt, and he asks if it is possible to raise pigs and fatten them for pork beyond the limits of where corn can be grown. The writer has often had this question put to him for a reply. It is self-evident that the corn and hog are naturally associated together as being especially adapted to each other. It has always been one of the best means of marketing the corn crop, and a corn-fed hog has always had a good reputation on the market, more so in years past than at the present time.

A corn-fed hog 50 years ago in the Eastern market would bring about one cent a pound more than those that were not corn-fed, which at that time were known as a distillery, or slop-fed hog. The bi-product from the distillery was economized by feeding it to hogs, the result was never as fat a hog as a corn-fed hog, nor was their meat solid, and especially the lard was lacking in solidity and stiffness. The lard of a distillery, or slop-fed, hog was inclined to be runny and oily, and the meat fried away to a greater extent than the corn-fed hog. Quite a good many people would buy a distillery-fed hog and feed him out on corn for four weeks to give him the solidity characteristic of a corn-fed hog.

But to-day there are hogs grown and fattened in many instances outside of the corn belt by the feeds, local to the different locations.

For instance, a man writes us from Texas that he can make three times as much pork off an acre of peanuts, as he can off of corn in his section—of good, solid meat at that. The man both in the South, West, Northwest and North can fatten on peas, soy beans and barley, and in some other points there are nuts on which the hog becomes fat, while they can be grown wherever clover and alfalfa is grown to the very best of advantage, though they need a little grain for an ideal ration. There are other feeds in different localities that have been found efficient in producing pork, so that pork raising to-day is not confined exclusively to the corn belt.—Swineherd.

It is better to keep spoiled eggs at home than to pay freight on them to market, especially so as there is no market for spoiled eggs.

LET US TAN YOUR HIDE.

Cattle or Horse hide, Calf, Dog, Deer, or any kind of skin with hair or fur on. We make them soft, light, odorless, wind, moth and water proof, and make them into coats (for men or women) robes, rugs or gloves when so ordered.

Your fur goods will cost you less than to buy them, and be worth more. Send three or more cow or horse hides in one shipment from anywhere east of Denver and we pay the freight both ways. Get our illustrated catalog which gives prices of tanning, taxidermy and head mounting. Also prices of fur goods, and big mounted game heads we sell.

The Crosby Fur Company,
571 Lyell Ave., Rochester, N. Y.



HOG CHOLERA CURED.

The following letter from S. J. Moomey, Mt. Pulaski, Ills., is evidence of the merit of the Snoddy Remedy, which is distributed by the Dr. J. H. Snoddy Remedy Co., of Alton, Ill.

The remedy has no doubt saved more diseased hogs throughout the United States than all other remedies put together have saved in the past 10 years. Read Mr. Moomey's letter:

Aug. 1, 1910., Mt. Pulaski, Ill.
Dr. J. H. Snoddy Remedy Co.,
Alton, Ills.

Dear Sirs: I have used four or five large cases of your remedy. I used the remedy once in fifty head and did not lose a hog. Last fall I had it among my hogs and put up 62 gilts, all sick, and only lost four. I saved all my large ones, but one sow with small pigs. One of my neighbors had cholera bad among his hogs and he shipped a carload, keeping back 17 sows. They all got very sick. I let him have some of the Snoddy Remedy and he saved all but one. My son had a bunch of hogs that were adjoining places to us. I let him have some of your remedy and he fed it to them and they did not get sick at all. Your friend,

S. J. Moomey.

The above letter was given without solicitation and practical farmers can do just as well as this man has done if they will use the medicine with as good judgment. Snoddy's free book of instructions will explain the whole method of handling diseased herds and keeping hogs thrifty. will be sent free. Look up the Snoddy advertisement and send for their free book. Address the Snoddy Remedy Co., Alton, Ills. Station C.

MONEY IN HOGS THESE DAYS.

A western farmer, when the hog prices advanced to the \$9 basis, was asked what kind of a profit there was in the business. He replied that he could make a good profit feeding hogs at \$5.30 to \$5.75 per hundred pounds. When the nine dollar hog arrived, he sold eighty hogs at the top figure. These averaged 190 pounds each, or a total of 15,200 pounds. At nine cents a pound the gross amount received for the shipment was \$1,368. Had he sold for \$5.75 per cwt., the price which he claimed he could make a good profit on in feeding hogs, the cash received for the eighty hogs would have been only \$874. The \$494 extra he received because of the high price over ordinary terms, was to him largely "found money," as it represented what he received over and above what he claimed to be able to sell his hogs for and make a good profit.

If the western farmer can produce hogs at \$5.30 to \$5.75 per cwt., and make money on the deal, it should be possible for the eastern farmer to do so too.

Don't neglect to drop apples, pears, peaches and all light colored fruit into a bowl of cold water as you do them to prevent discoloration before cooking.

Extravagance.

(From London Punch.)

Fresh-Air Fiend—Here! what about a window open?

Shocked Host—Window open! My dear boy, do you know these cigars cost—cost two-and-ninepence each?

HOGS.

FOR SALE—Thoroughbred Durocs Poland Chinas and large Yorkshire Swine, Rhode Island Red Chickens and eggs. WM. HARSHMAN, Thurmont, Md.

BARGAINS IN POLAND - CHINAS, BERKSHIRES and CHESTER WHITES I now have a large stock of probably the best I ever owned. Cannot tell you all here, but I have Boars and mated not skin; sows bred and born ready for service. Guernsey Calves and Registered Scotch Collie Puppies. Write for prices and free circular. This stock must go and will be sold. M. E. Turkeys, Barded and White P. Rocks, B. Leghorns and Beagle Dogs. P. F. HAMILTON, Cechranville, Pa.

FOR SALE—Some fine Yorkshire Pigs—no better stock in U. S. Just imported—new blood. A. A. BRADLEY, Prewsburg, N. Y.

MILCH GOATS.

MILCH GOATS—Information regarding this most profitable milk producing animal. Write G. H. Wickersham, 1242 St. Francis avenue, Wichita, Kansas.

POULTRY.

FOR SALE—Good honest stock eggs of Single Comb Brown Leghorns; finest strains. Cups and Blue Ribbon winners at Cumberland, Frostburg and Somerset. 600 fine large farm-raised birds for sale at reasonable prices. Twenty-five extra choice Light Brahma cockerels for sale. Write me. HERMAN SHOCKEY, Sand Patch, Pa.

MISCELLANEOUS.

HORSES going blind Barry Co., Iowa City, Ia., can cure.

AUTOMOBILISTS ATTENTION—Fur-lined coat never worn, lined throughout with the best Australian mink, elegant Persian lamb collar, cost \$175. will sell for \$35, also pair of cinnamon bear robes \$50 cost \$120. Write W. SCOTT, 121 East 27th St., New York.

TROTTER MARE for sale—a handsome, black, trotting mare, and beautiful stud colt, very fast. Second cousin to Dan Patch. Price \$100. P. J. WYAND, Cumberland, Md.

FOR SALE—Two litters Scotch Collie puppies, sired by the noted "Flying Comet" and "Laddie Boy," out of bitches bred in the purple; perfectly marked golden sable; strong, healthy, farm-raised stock. Prices from \$10 up. FRANK H. TAYLOR, Reedsville, Pa.

SEND 10c for a sample copy of the largest, newest, race-horse paper published. P. J. WYAND, Cumberland, Md.

FOR SALE—Pure bred Registered Holstein bull calf. Mostly white. Fine individual. Good pedigree. Write for pedigree, photograph and price. MADISON COOPER, 101 Court, Watertown, N. Y.

HOG CHOLERA CURED

SNODDY REMEDY CO., Alton, Ills.

Orient, O., Nov. 16, '09.

Gentlemen: I have now given your remedy a hard test. My hogs were very sick and dying when I began the use of your remedy. A few of them were so near dead I could not get the medicine in them and these of course died. I have saved everything else that was able to take the treatment and my hogs are now in fine shape and are on full feed doing well. My sows that were near farrowing time had the cholera and I cured them. They have since farrowed strong, healthy pigs and the sows and pigs are doing fine. It is the only remedy that I have ever heard of that will absolutely cure hog cholera after the hogs are sick and especially save the pigs from the sows after going through the cholera as mine did. I have the utmost confidence in the remedy and recommend it to all hog raisers as a remedy that they can rely on in safety. I will answer any letters addressed to me from feeders who will enclose postage for reply.

With kindest regards, I am,

Respect.,

D. O. McKINLEY.

Snoddy's free book of instructions will explain the whole method of handling diseased herds and keeping hogs in thrift, will be sent free on request. Address

The Snoddy Remedy Co., Alton, Ill. Station "C"

[There is no publication that has done so much for the hog industry as has *American Swineherd*, and we hope that those who read the Editor's offer here will become subscribers to his paper.—Editor BLOODED STOCK.]

EDITOR'S BIRTHDAY.

The editor and founder of "The American Swineherd" will reach his seventieth birthday on November 30, 1910. Perhaps he has not seen 2 per cent. of the readers of "The American Swineherd." Inasmuch as we received this week a letter from a prominent bank officer, of a national bank in the State of Nebraska, who stated, in answer to one from us, in which we remarked that we did not wish to annoy anyone with our letters, and if without interest they would be discontinued, he replied: "Your letters are not annoying to me. I enjoy reading them, for the reason that of all the letters that I have ever received, I want to say that you have a

style that puts you in a class by yourself." In answer to this, thanking him for his compliment and giving him some facts of my personality as to my age and life as a farmer up to the time that I enlisted in the Civil War; but that I was no quitter, and entered into every proposition which appealed to me with the same enthusiasm as when a boy. In reply to this letter he says: "Have read yours with increased interest. I can hardly reconcile the letter written by you, for your letters pictured to me a college man, a business man full of ginger, up and coming, to be a man from thirty-five to forty years old. "Do you know, it does us younger business men and breeders good to read letters like yours, especially that part of your letter wherein you say you are in your seventieth year, and you cannot imagine you are anything but a boy, especially when you are talking to the boys?"

"If I live to be seventy and more I only wish that I may be endowed with the same vitality, the same originality, and feel as young as you do."

As it seems to be the fashion nowadays to make quite a little over a birthday anniversary, and as a great many persons who have read "The Swineherd" for many years might enjoy seeing the photograph of the editor, we have concluded to issue a souvenir card showing him at seventy, and also in his cavalry uniform at twenty-two years of age, together with the picture of the secretary, George M. Cantrall, the naturally gifted judge of hogs, who, some of the best judges of hogs have conceded, can see six months ahead of a pig better than anyone; he has picked out some of the pigs that have become the most noted hogs of the Poland-China breed. Those who do not care for this we do not want to impose upon them, and to find out those who do, we will send this double card, with good photographs, as specified above, to those sending in a renewal for themselves or a friend of \$1 for four years, or for four subscribers one year each. Where they mention it we would appreciate a shower on November 30. The editor has only the best of wishes for everyone who is striving to advance and improve himself, and will be glad at any time to assist with words of advice and cheer all who are struggling.

AMERICAN SWINEHERD,

Chicago, Ill.

Headquarters for Breeders in N. Y.



Broadway Central Hotel

Broadway, Cor. Third Street
IN THE HEART OF NEW YORK
Only Medium Price Hotel left in New York

Special attention given to Ladies unescorted

SPECIAL RATES FOR SUMMER
Our Table is the foundation of our enormous business.

American Plan, \$2.50 upwards
European Plan, \$1.00 upwards
Send for Large Colored Map and Guide of New York, FREE

DAN. C. WEBB, Proprietor
The Only New York Hotel Featuring

AMERICAN PLAN
Excellent Food Good Service

About 1,800,000 acres of land will be sold in Oklahoma by the Government, at public auction, commencing November 21, 1910, and continuing to March 1, 1911.

These lands are located in forty counties in the eastern part of Oklahoma, and are tribal lands, belonging to members of the Five Civilized Tribes of Indians, as follows:

Seminole Nation—3,400 acres, located in 110 tracts, each contain from 1 to 160 acres.

Creek and Cherokee Nations—About 114,000 acres, in 4,000 tracts, each containing from 5 to 1,100 acres.

Choctaw and Chickasaw Nations—About 1,700,000 acres, in 10,000 tracts, each containing from 5 to 11,000 acres.

Sales will be conducted at the county seat in which the land is located; in the Seminole, Creek and Cherokee Nations from November 21 to December 23, 1910; and in the Choctaw and Chickasaw Nations beginning December 1, and continuing to March 1, 1911.

Any person can purchase not exceeding 160 acres in each nation of agricultural lands, and not exceeding 640 acres of other lands, either in person or by an agent, and not requiring residence or cultivation, as provided for in the public land laws.

Terms:—Twenty-five per cent. at time of sale, balance with six per cent interest, 25 per cent. within six months, and 50 per cent. within 18 months from date of sale; full payment can be made any time and patent will issue immediately thereafter.

Circulars giving descriptions and minimum prices of land to be sold in each county can be had on application to the Commissioner of Indian Affairs, Washington, D.C., Commissioner to the Five Civilized Tribes, Muskogee, Oklahoma; Superintendent of Union Agency, Muskogee, Oklahoma; Superintendents of Indian Warehouses at 121 Wooster Street, New York, Sixteenth and Canal Streets, Chicago, Ill.; 600 South Broadway, St. Louis, Missouri; and Eleventh Street and Capital Avenue, Omaha, Nebraska, without cost. Blue print maps of each county, showing locations of lands to be sold, can be examined at any of the above places without cost, and will be mailed to any address for \$1.00 each. For more detailed information apply to J. G. Wright, Commissioner to the Five Civilized Tribes, Muskogee, Oklahoma.

OUR FEATHERED FRIENDS

Conducted by George W. Miller.

BAKED FOOD FOR CHICKENS.

Much of the discomfort of raising chickens and certainly much doctoring would be avoided, if only a little more care were exercised in the matter of feeding the birds. With chickens as with human beings, upon the diet depends in a great measure the well-being and life itself. It is a wonder that so many chickens reach maturity after all, considering the poor care they get, and while it is a survival of the fittest in many instances, still chickens can stand a great deal in the way of filth, neglect and poor food. If there were an active branch of the Society for the Prevention of Cruelty to Animals in every country neighborhood, surely some men and women would have grave charges to answer for ill treating the poor fowls, but as it is, much poultry raising is carried on by people who believe in "luck" and who act accordingly.

If all the good materials that are thrown down to waste on the dirty ground could be utilized in the shape of baked food, there would not be so much mortality in the poultry yard every season. Raw corn meal is mixed with water and thrown on the ground to there absorb disease germs, and the little chicks are expected to thrive on it, when the same amount of meal baked in the oven and then fed on a clean board or bit of clean sod would astonish some chicken raisers. In fact, good baked food is the standby of the woman who doesn't believe in luck, and every time she has a fire in her range she bakes some dainty for her hungry chicks. One good lady who shook her head over the idea of baking things for her chicks, said that her chickens were hungry all the time, and if baked food gave them better appetites she wanted nothing to do with the idea. A hungry chick cannot grow, and there are diseases brought on by under-feeding just as by over-feeding or feeding improper foods. It is downright cruelty to hatch a lot of fowls if one is too stingy to feed them.

It is astonishing how many things may be found to go in with the meal or ground oats to be baked. The gravy left over from dinner, bits of potato, and potato parings, scraps of meat, the remains of the breakfast cereal, anything too wet or too raw to feed to the chicks mixes nicely with the meal, and comes out wholesome and fresh. Instead of boiling old potatoes for the chicks, try baking them, and then feeding them warm to the fowls. Instead of using the surplus sweet milk in the chicken pans, making them sticky and sour in the sun, try mixing the stuff to be baked with the milk. Curds, potato, and meal, or meal and milk, or stale bread and meal and milk, any sort of good baked mess is relished by the hungry chicks. Of course, when they are able to eat cracked corn they will enjoy that, but still an occasional meal of baked potatoes or scraps mixed with milk is relished. This may sound like a great deal of trouble, but it isn't, as the baking pans need not be cleaned thoroughly, and the remains of a meal

may be mixed in any sort of vessel for baking.

Nobody ever expects a chicken to eat dry beans, but baked beans they will eat greedily. If there are old beans left over it is well to soak and parboil them till tender and then finish off the oven. A sprinkling of pepper may be added to the table scraps, but the beans should not be wet and sloppy. Indeed, little chicks should never have wet, sloppy feed. Give them plenty of pure water and dry feed if you want them to thrive; Nature will attend to wetting the food, once it is in the little crop. Don't be afraid that the chicks will not know how to drink, and make the mistake of trying to supply food and drink at the same time. They will find the way to the water dish, and if it is clean and wholesome the chicks will thrive on their baked rations. Then with plenty of bugs and worms from the clean soil they will regard your work by growing like the proverbial weeds, and keeping free from disease.

CHICKEN MATTERS.

We have never known chicken feed to be so high in price as it is this winter, and whatever will tend to cheapen the cost of living for the chickens ought to be welcome to the poultryman. If roots and ensilage improve the health of animals and cheapen the cost of the food, they will do the same for fowls. It is too expensive to feed grain exclusively when the winters are long and severe, and as the fowls prefer a variety of food, they should have it. A quart of corn meal, added to half a peck of cooked turnips, will provide a better meal than can be procured from either the corn meal or the turnips if either are fed alone. It is the mixed food.

the combination of various elements, that enables the hen to provide the different substances that make up the combination called an egg. Lime, phosphates, nitrogen, magnesia, and water are elements that are absolutely necessary to make an egg, and many foods contain an excess of some elements and a deficiency of others. When a mixed food is given, there is a partial balancing of the needed elements, and the several varieties assist in digesting each other, thereby avoiding waste of undigested food. Finely-chopped ensilage, clover or alfalfa, potatoes, beets, carrots, or any succulent, bulky food, served with an admixture of a variety of ground grain will provide the hens with a larger supply of egg elements and entail less cost for food than when the hens are compelled to subsist entirely on grain.

The main factor in securing success with poultry in winter lies in the hen house being perfectly dry and warm, sufficient light and ventilation. Beware of providing too much ventilation, for in winter that means frozen combs, colds and kindred evils. Have all cracks and crannies closed, as drafts are to be avoided. Do not overcrowd if you would obtain best results. If too many fowls are kept in a small enclosure, the younger and weaker ones do not get sufficient food and consequently they do not lay, are in poor condition and liable to disease.

If you need new blood for your flocks next season, this is the time to buy cockerels. You can get them much cheaper and have a better choice than if you wait till spring.

PURE BREEDS ARE BEST.

Occasionally one comes across a farmer who believes that common scrub fowls are harder and more profitable than the pure breeds, but the number is getting less every year.

It costs no more, after the first purchase, to keep a flock of improved fowls than it does to harbor dunghills or cross breeds. Either kind, when properly fed, will eat just about as much as the other. Or if there be any saving, it is so trifling as between one or the other kind, that it is not worth noticing. If judiciously provided for and tended from the shell upwards, as all fowls should be cared for, either of the larger breeds will make good eating poultry at the proper age, and the hens of any one kind will lay an abundance of eggs, take them as they average, throughout the year.

Among any of the pure breeds there will always be found some exceptionally good ones for breeding purposes, or for exhibition. All these finer specimens will command the highest current prices among fanciers or amateurs, who are about to commence the propagation of prime stock, and who are disposed to pay the better prices for such specimens. At the same time, the imperfect birds, as to form, color and other Standard requisite points, come to good size at maturity, and will pay much better for their keeping, at the right killing age, than will the runts or the smaller barnyard fowls, which cost quite as much to feed and to bring them to the proper state for slaughtering. The improved hens will, in a season, lay one-third more eggs, in number, and of a larger size usually, than will the dunghills. As broilers, the young cockerels of the heavy breeds are fitted for this purpose at a much earlier age, and so are far more valuable in this respect than are the lesser sized or common varieties.

In any view, then, it has come to be well determined that pure bred fowls are the most economical, the most valuable and the most desirable for all purposes, and although any of these better breeds cost a little more at the outset, the product they yield in twelve months in eggs and meat alone, saying nothing of the income that may be had from extra good specimens, will be found far more satisfactory than will be same number of the ordinary dunghill breeds.

Give charcoal to your fowls. It has a tendency to keep them in health. Corn on the cob thoroughly scorched, will furnish charcoal in as good a form as there is. Feed plenty. No harm can come from it.

ELGIN POULTRY SHOW.

It was announced that the twelfth annual exhibition would be held at Elgin, Ill., December 27 to January 1, by the Elgin Poultry Association. Mr. M. E. Meredith, secretary of the Association, 631 Congress street, Elgin, Ill., now informs us that the dates have been changed to January 9-14, since a building in which to hold the show on the first mentioned dates could not be secured. Prospective exhibitors and visitors will please bear this change of dates in mind.

BENEFITS FROM BIRDS.

Facts Showing That the Feathered Creatures Are Good Friends of the Farmer.

Aside from the good cheer which the presence of birds inspire, their economic value is very great. Birds are our greatest natural check upon insects, tending to prevent their undue increase and preserve the proper balance in nature. They feed upon caterpillars, grubs, cutworms, beetles, bugs, butterflies, moths, grasshoppers, chinch bugs, plant lice and many other destructive insects. Some birds are on hand all the year to guard the crops and trees against the ravages of insects.

Another large service rendered by birds is the destruction of various rodent pests such as gophers, spermophiles, mice and rabbits, which work such havoc to trees and crops when they become numerous. The annual loss by insects and rodents amounts to several million dollars each year in the United States. This loss is increasing as tillage increases and birds are destroyed. Hence it is of the greatest importance to agriculture that our valuable native birds be preserved and everything possible be done to allow them to increase. The third line of service is in the destruction of weed seed. Many kinds of birds feed upon the seeds of noxious weeds, in this way destroying countless millions of seeds that otherwise would germinate and spring up to pollute the fields, lessen the yield of grain and lower its market value. The service rendered here amounts to many million dollars annually in the United States.

Certain birds also serve as scavengers consuming decaying animal matter that otherwise might become a source of pollution of our air, streams and water supply, thus endangering health. The use of native game birds for food is an important item also, and may be made even more important through the proper conservation and increase of our native game birds, and by domestication and rearing as permitted by the present North Dakota law.—From Bulletin of the North Dakota Agricultural College.

We are having beautiful fall weather, but we must expect the severe kind before long. Don't let the cold weather catch you unprepared.

Cost of the French Strike.

(From the Christian Herald.)

The railroad strike in France is over and some of the damages are being calculated. It is claimed that the loss to the country will amount to between fifty and sixty million dollars. A high financial official in Paris estimates that \$25,000,000 of imports from England and Germany were held up and that about \$21,000,000 worth of exports also were detained. The railroads lost \$2,100,000 in passenger fares and \$3,000,000 in freight charges. The strikers and other railroad hands lost \$2,000,000 in wages.

A Poor Plan.

(From the Chicago Record-Herald.) The trouble with some men who reach the top is that they go right on over and down the other side.

Belle Brand Crushed Oyster Shells

Make Poultry PAY!

Tests show where these shells have been used—duration of test 22 days—number of eggs, 35; weight of eggs, 1489.6 grammes. Where Sharp Grits were fed—test 22 days—number of eggs, 6; weight of eggs, 257.6 grammes. This is convincing argument why every poultry house or yard should have them. They'll make hens lay an egg a day, with firm, hard shell—less liable to break in shipment.

Belle Brand Crushed Oyster Shells supply Carbonate of Lime in natural form and acts as a grit, making them superior to any other poultry food on the market. Write for Free Catalogue to LOUIS GREBB, BALTIMORE, MD.

Do not waste your time and money on patent secrets and secret nostrums which you sometimes see peddled over the country. Most of these secrets are well known to all honest poultry people, and the knowledge can be had from any of them free of charge or through the columns of a paper such as this. If there is anything you wish to know about poultry write to us stating your trouble and ask for advice. It will be given free in our columns. Those in charge of the poultry page are experienced poultry raisers and have at hand books on poultry culture for the very purpose of finding out all there is to be known about the business not only for the benefit they derive from such study in their own business, but also to enable them to answer such inquiries as may come in from time to time. A patent nostrum that will be good for every ailment that poultry flesh is heir to has never been invented, and it never will be. Fresh air, sunshine, pure water, and a well balanced ration are all the panacea healthy fowls need. If your fowls are sick they need something for the special disease and not a cure for all or everything.

\$350 a Month--500 Hens

Edgar Briggs did it! BRIGGS, the Thomas A. Edison of the Poultry World—the man who wrote "Profits in Poultry Keeping Solved,"—fourth edition just now ready. No branch of mercantile business or farming pays the profit that poultry guarantees under the Briggs system. Briggs' "Poultry Silo"

discovery alone is now saving farmers and poultrymen thousands of dollars daily. He feeds his hens "poultry ensilage"—a processed feed that makes them lay regularly, even in winter, when egg prices are "out of sight." Briggs tells how to make the ensilage at not to exceed 15c per bushel. Briggs' Book contains literally hundreds of secrets, making poultry raising for every one a profitable business or side line.

FEAST OF FACTS, \$1.00—For a short time only we offer Briggs' Book "Profits in Poultry Keeping Solved"—100 pages, fully illustrated and nicely bound, including "Secrets in Poultry Culture"—the many secrets used by Briggs, and one year's subscription to "Poultry Success," the leading monthly poultry journal. If you have never read it, borrow a copy from your neighbors, or write for samples. ALL THE ABOVE ONLY \$1. Write to-day.

FRUITS AND VEGETABLES

VARIABLE PRICES OF FRUIT OWING TO POOR DISTRIBUTION.

As editor of Green's Fruit Grower, I have a large correspondence with orchardists living in various parts of this country. These letters indicate a lack of knowledge as to the price of fruits, and indicate that the growers of fruit in one State may not be receiving more than one-half as much as the growers living in other nearby States. I have before me a letter from a lady in Pennsylvania, who is offered only \$1.50 per barrel for her Rhode Island Greening apples. I write her that these apples in the Rochester, N. Y., market could be sold now at from \$2.50 to \$3.50 per barrel, the price depending upon how carefully they were graded, the size of the fruit and its general appearance. Possibly her Greenings are of such poor quality that they may not be worth more than \$1.50 per barrel.

Letters from other correspondents indicate that the writers do not always know where to find buyers for their apples or other fruits. In fruit growing centers like western New York, buyers flock in from every part of this country and from many parts of Europe, but where there are few orchards the fruit growers cannot wait for buyers to come to their homes. They must find the buyers, and here comes the necessity for business qualifications on the part of the fruit grower. I do not advise shipping fruit to commission houses or to any individual unless the commission house or individual is well known or well recommended by some reliable person. Much money is lost each year by farmers and fruit growers sending produce to unknown and unreliable commission houses in the larger cities. Many orchards are under the management of widows who have no experience in selling, and not being posted on prices or on grading and packing, hardly know what to do with their valuable fruits. In such cases it may possibly be well to look for a purchaser who will pick the fruit and barrel it himself. When such an arrangement is made a carefully worded contract should be prepared and signed by both parties.

BUYING BIG ORCHARDS IN WESTERN NEW YORK.

One Orleans county farmer, about four miles from this village, says he has refused \$9000 for his crop of 3000 barrels of fruit, and the pockets of many orchardists will be well filled again this fall. The fruit crop is the mainstay of most Orleans county farmers, says "Democrat and Chronicle."

A report is in circulation here that a syndicate of Wall Street financiers is to buy up most of the better Orleans farms with large orchards as an investment. Representatives of the syndicate, it is said, have taken options on several large farms. Orchard land at the present time is valued at \$400 an acre, whereas unset adjoining property ranges from \$75 to \$100 an acre.

The soil throughout Orleans county,

and the atmosphere, which is said to be affected by the great water chain of Lake Erie, Niagara River, Niagara Falls and Lake Ontario, have proved particularly well adapted to producing fruit recognized as having the acceptable color, size and flavor.

Some farmers are experimenting in packing their first quality fruit in boxes holding about one-third of a barrel. The fruit is graded and put up wrapped in tissue paper.

The high prices paid by the buyers for barreled stock is causing the price of cider apples and dryers to advance, and these by-products of the apple market may advance, owing to the small crop in the southern and western states where apples are grown. The increasing demand for western New York apples in London, Paris, and other foreign markets, as well as in the markets of the large cities of the United States, is said to be responsible for the placing of much of the better quality of fruit in the chemical cold storages here as soon as the fruit is taken from the trees. Many farmers have learned from experience that fruit put in cold storage as soon as possible after being picked keeps better and brings a higher price when shipped after the bulk of the poorer fruit has been cleaned up on the market.

The efforts of the various fruit growers' associations to induce the orchardists to be more careful in the selection of their fruit for barreling, and in grading and marketing each size and quality of fruit according to the standards established, has resulted in causing foreign buyers to recognize that Orleans county fruit, when honestly packed and shipped, is not to be duplicated anywhere in the United States.

The output of the Orleans county orchards this fall is estimated to be about the normal crop, although in some sections certain varieties are smaller yielders and the stock small in size.

ORCHARD AND GARDEN NOTES

From "Rural Life."

Treatment recommended for canker of apple trees by one of the experiment stations, is to paint the affected trunk with a combination of one pint whale oil soap, three pints slaked lime, and four gallons of water; thicken to the right consistency with wood ashes, or with bordeaux mixture thickened

with lime until like whitewash.

It is an excellent plan to whitewash the trees, filling the cracks in the bark with lime, so as to fill up many hiding places of fruit pests, as well as to destroy many which are in hiding.

There are pear trees now in the vicinity of Philadelphia, Penn'a, supposed to have been grown at the time of the Revolution, and which are in good healthy condition; and numerous ones which, evidently, have passed seventy-five years.

In trimming trees, the wound made by cutting off a limb close to the trunk will soon heal over, while the wound made by cutting off the limb two or three inches from the trunk leads to decay and sometimes causes the ultimate loss of the tree itself.

An old fruit grower says that the pick is the best tool he ever used around apple trees when the ground has become too hard. He sinks the pick eight or ten inches into the soil and merely pries the dirt loose, and does not disturb the roots in this way.

It is estimated that an acre of apple trees in twenty years (counting ten crops of fruit to that period) will consume 1336 pounds of nitrogen, 310 pounds phosphoric acid, and 1895 pounds of potash. To restore the potash alone would require more than twenty-one tons of high-grade ashes, containing five per cent. potash. How much of this does the average fruit grower return to the soil?

The following wash is recommended to prevent rabbits gnawing apple or other orchard trees: Take one-half gallon carbolic acid, four pounds of sulphur, two gallons soft soap, and thirty-two pounds of lime. Mix the soap with enough water to slake the lime, then while hot mix in the sulphur and acid. When applied by about the first of April it will also act as a preventive of borers.

The "trimming up" method is considered by many to be the best. Cut off the bottom limbs to a point three or four feet from the ground, then cut off the ends of the most extending branches. Do not prune too closely. Pruning may be done any time in winter or early spring, but the wounds should be covered at once with paint. An old tree bleeds freely, and will suffer if there are a large number of wounds on it.

When excessive winds blow the top of a tree out of shape, cut it out, leaving a nearly erect southwest branch to become the new central stem. Shallow, loosely planted trees sometimes blow over. They may be put back by excavating on the opposite side and pushing the tree back, tamping the earth as firmly as possible on the side toward which they leaned. Care should be taken not to wrench the roots loose in this operation.

Potash is the chief fertilizer to be applied to fruit trees, especially after they come into bearing. Potash may be had in wood ashes and muriate of potash. It is commonly used in the latter form. An unusual application of potash should be made upon bearing orchards—say 500 pounds to the acre.

RARE FRUITS.

The poha berry, a wild bush fruit indigenous to Hawaii, makes a jam that looks like the strawberry article, but it is better and less cloying, says the New York "World." The bush grows close to the ground and spreads something like the juniper. The plant is scarce and the cattle eat it ravenously, so it has a hard time surviving. Another preserve is a marmalade made from the papaia, a fruit like a cantaloupe that grows on a tree and takes the place of the latter delicacy at the breakfast table. It lacks the slight cucumber flavor of the melon and is very agreeable. A wild raspberry of large size grows plentifully on a bush without thorns. It is full of juice and slightly bitter, but makes a pleasant dish when cooked and possesses preserving possibilities.

Hawaiian folks carry their alligator pears with them when they cross to San Francisco in the pear season. They are eaten as a fruit with salt, as a salad with oil and vinegar or mayonnaise, or as an addition to soup. Really ripe, a few spoonfuls dropped into clear consommé effect a surprising gastronomic improvement.

OLD TIMES AND FRUITS.

Editor Green Fruit Grower:—The old Isabella was then as the Concord is to-day—the grape for the million, but the country then being more taken up with wood land, the snow lying on and the seasons more uniform, with frosts not so late in the spring and later in the fall, because of springs nearer the surface, and streams and ponds higher, this old sort scarcely ever failed to mature large crops of one of the best keeping grapes. Our fathers used to pack them in tea chests, leaving the lead lining in and putting dry leaves or newspapers between the layers and away in a room through which the old wood furnace smoke pipe run, and packed and put away thus, they kept well till February and March, and how we used to luxuriate on them and the old Rambo, Peck's Pleasant, Yellow Bellflower, Red and Black Gilliflower, Newtown Pippin, and other apples.

WHAT IS A GOOD PRICE?

Considering the outlook from the possible losses 94 cents per bushel is as good as \$1.00 next March. This is based on shrinkage alone, and not from insect or other losses. Determine for yourself what you will do.

SMALL FRUITS IN MICHIGAN.

Michigan horticulturists who early in the season despaired of picking anywhere near a full crop of small fruits are now elated far beyond expectation, says "Tribune armer." The cherries, which in late years have been among the mainstays of the Grand Traverse region, are not only a good-sized crop, but in quality exceed the fruit of other years. One of the peninsula men has shipped to market a consignment that matches any grade imported from California or elsewhere. There were two varieties, the dark and the light. Some of them were three and a-half inches in circumference.

Another grower has shown a sample of some of the finest Windsor cherries ever grown in this section, the average size running over two inches in circumference. The flavor is all right. The fruit grows thick, despite the visitation of frost at an untoward season. The crop of sour cherries also is encouraging, both in the matter of quality and quantity.

One of the cherry men, who also has fine apple orchards, is expecting a harvest of one thousand bushels. His Alexander trees especially are in good condition, and promise much by picking time.

Some of the currant men have done well, the bushes are in good, healthy condition, and the returns in the main have been satisfactory.

No one seems to know at this writing just how the grape crop in the southern end of the lower peninsula is coming out. There will be a great shortage in production, but some of the grapes are fine and will bring big prices.

One grower in the Lawton district, one of the most famous of the state, expects to get four hundred baskets from a four-acre field, but he is looking for a good price to make up the loss in quantity.

In the same district last year the output ran up to more than two and a-half million baskets. This did not include the big quantity sold to the juice men. This year the growers are expecting 600,000 baskets. The juice men are offering \$40 a ton, while last year they paid only \$20. The basket factories have shut down for the season, with 225,000 baskets on hand.

LIME AS A FERTILIZER.

The effect of lime has been universally misunderstood by the majority of agriculturists, the opinion erroneously existing that lime is a complete fertilizer, writes J. B. Graham, in "Rock Products." It is not, although it is an important source of calcium, one of the mineral elements upon

GREATEST NET PROFITS

ARE MADE IN THE LAND OF MANATEE ON THE WEST COAST OF FLORIDA, GROWING ORANGES, GRAPEFRUIT AND VEGETABLES.

Highest prices secured in Northern and Eastern Markets. Quick transportation—low freight rates via S. A. L. Ry. Cheap lands—ideal climate—two and three crops a year—\$500 to \$1500 net per acre. People who locate here are satisfied. Write for free illustrated booklet. Address: J. W. WHITE, GEN'L INDUSTRIAL AGENT, SEABOARD AIR LINE RY. DEPT. NORFOLK, VA.

which a number of forms of plant life depend largely for healthy and vigorous growth. Its principal value lies in its power to correct acidity and thus encourage the growth of plants that are not especially adapted by nature for thriving on lean soils. The two principal effects produced by the application of lime are, first, to correct the acidity of the soil, and secondly, to decompose the soil itself. Very few plants will reach a state of healthy maturity on soils that are strongly acid. This is explained by the fact that practically all plant life, especially leguminous, require large quantities of nitrogen to properly build up their vegetable tissues and carry on their processes of assimilation of other important elements from the soil. These vital chemical changes so necessary to plant life are brought about by small organisms known as nitrifying bacteria that inhabit their root fibres. The process, which is termed nitrification, and by which the nitrifying bacteria transform the insoluble organic nitrogen, such as ammonia, into soluble nitrate nitrogen, the form in which it becomes available as plant food, is greatly promoted by the presence of lime. The nitrogen gathering bacteria of the legume plants will not develop and multiply in acid soil, with the result that the root fibres do not have the power to accumulate the large quantities of atmospheric nitrogen they must have. It can readily be seen how necessary it is that all cultivated plants have an abundance of lime available in the soil.

There are less disappointments and more regular marketings on a live stock and grain farm than upon any other agricultural combination.

Elkhart Buggies

are the best made, best grade and easiest riding buggies on earth for the money.

FOR THIRTY-SEVEN YEARS

we have been selling direct and are **The Largest Manufacturers in the World** selling to the consumer exclusively.

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Save \$30

CLARK'S

DOUBLE ACTION "CUTAWAY" HARROW

WITH JOINTED POLE. It is made especially for every day work. It will increase your crops 25 to 50 per cent. This machine will cut from 28 to 30 acres, or will double-cut 15 acres in a day. It is drawn by two medium horses. It will move 15,000 tons of earth one foot in a day, and can be set to move the earth but little, or at so great an angle as to move all the earth one foot. Runs true in line of draft and keeps the surface true. All other disk harrows have to run in half lap. The Jointed Pole Takes All the Weight Off the Horses' Necks, and keeps their heels away from the disks. We make 120 sizes and styles of Disk Harrows. Every machine fully warranted. Send for FREE booklet with full particulars.

CUTAWAY HARROW COMPANY,
Main St., HIGGANSUM, CONN.

BIG CROPS

HOME BEAUTIFUL

Conducted by George Middleton Fisher

THE FARMER'S WIFE.

"Above all, the conditions of farm life must always be shaped with a view to the welfare of the farmer's wife and the farm laborer's wife. To have the woman a mere drudge is at least as bad as to have the man a mere drudge. It is every whit as important to introduce new machines to economize her labor within the house as it is to introduce machinery to increase the effectiveness of his labor outside the house.

"I haven't the slightest sympathy with any movement which looks to excusing men and women for the non-performance of duty and fixes attention only on rights and not on duties. The woman who shirks her duty as housewife, as mother, is a contemptible creature; just as the corresponding man is a contemptible creature.

"But the welfare of the woman is even more important than the welfare of the man; for the mother is the real Atlas, who bears aloft in her strong and tender arms the destiny of the world. She deserves honor and consideration such as no man should receive. She forfeits all claim to his honor and consideration if she shirks her duties."—Theodore Roosevelt's address to farmers at Utica.

HARD SOAP.

Three five-pound pails of clarified and strained grease put onto the back part of the range that it may melt slowly. Three one-pound cans of potash put into a large stone bowl; upon this pour three quarts of cold water, and three tablespoonsful of powdered borax, one-half cup of ammonia, one-half cup sal soda dissolved in equal quantity of hot water, two tablespoons of granulated sugar dissolved in cold water. Stir with a wooden stick until the potash is dissolved, then let it stand until cold.

When the fat is melted turn it into the potash. It must not be hot when added to the potash, but so cool that it will hardly run when poured. Pour into the potash in a thin stream, stirring all the time. When all has been added continue stirring for about ten minutes, when the soap should begin to look thick and rosy. At this stage pour it into a paper-lined box which has been greased, having it about four inches deep. Let it stand a few hours; then cut into bars and then into pieces convenient to use. It should not be removed from the box for at least two days. It will be hard and white. I do not know the originator of this recipe, but have found it good.

Do you realize that a well built shed 16x32 feet in size will house practically all the machinery used on the average quarter-section farm, and that such a shed can be built for approximately \$125? If it is constructed of first-class materials it will easily last fifteen years, consequently the cost of such a shed would not exceed \$275. In fifteen years this would be an average annual cost of \$18.50. From these figures isn't it self-evident that a machine shed would pay handsome dividends?

FASHION HINTS.

By Elizabeth Crosby.

Velvet and velveteen give promise of being very fashionable for the more dressy coat suits.

Among the most striking trimmings for fall gowns are embroideries done in very heavy silks and the metallic threads. Some are enriched by jewels.

The new waists to be worn with tailored suits as well as the waists of costumes will be of chiffon or marquisette in dark tones which match the suit.

Types of the narrow skirt now the vogue in Paris are seen on this side of the Atlantic, but the most pronounced effects are seen oftener in suits than in dresses.

Hoods are seen on many of the handsomest evening capes. These are often finished with a tassel more or less elaborate.

Lace perches in high bows on hats; it covers silk evening gowns; it forms beautiful raps, either in separate glory or combined with gold tulle.

On many of the lingerie dresses English eyelet embroidery is used. It is combined with voile de cotton, much in demand now because it does not crumple easily.

Many have soft crush girdles; all are cut with the body and sleeves in one piece and fall full from the waist. The majority are touched with the "hobble-skirt" idea, for they are tied in around below the knees.

A gown of foulard which had a cream-colored ground with golden-brown figures has a skirt which seems to be one big puff and is caught at the hem into wide piece of solid brown satin. The corsage appears all belt, for the belt is so high that it extends under the arms.

There is a new silk liberty shower-proof weave for dresses and coats which is very effective. This silk, 33 inches wide, is in Trian texture and it makes up delightfully into gowns for all occasions.

Pretty inexpensive cuff and collar sets are made of striped linen with the stripes running around. The ground is white, the hairline stripes are of black or color, and there may be or may not be a narrow hem of the color.

Veils are fine and clear, with large open mesh, and the lace motif has entirely disappeared. Some of these clear veils have lace edges, and are in great requisition with toques.

Although wheat heads are seen on some of the embroidered gowns, the floral designs continue to predominate. It is no wonder, for they are both pretty and graceful.

The rage for black velvet trimming is fairly sure to hold over into the winter and should be welcome to women, for it makes possible very effective trimming touches at comparatively slight expense and affords opportunity for easily freshening old frocks.

When washing lace never rinse it in blue water, but in skim milk, which gives it a soft, creamy color.

TID-BITS.

Washing a Kilted Skirt.—Tack the plaits from the point where the machine stitching ends, all the way to the bottom of the skirt. It then may be washed and ironed as easily as a plain gored skirt.

Vinegar is useful in reviving color. One tablespoon to each quart of rinsing water, wring tightly and dry quickly.

Mistress—"Did your aunt call on you again last night, Bridget?"

B.—"Yes, mum."

Mis.—"Well, I wish you would ask her to smoke milder tobacco."

Stockings first came into use in the eleventh century. Before that time cloth bandages were bound around the feet.

Tom—"I hear you are going to start housekeeping?"

Jim—"Yes."

Tom—"Well, what have you got towards it?"

Jim—"Why, a wife."

Music Lessons Free

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BY MAIL
IN YOUR OWN HOME

Piano, Organ, Violin, Guitar, Mandolin, Banjo or Cornet—Beginners or advanced pupils. Thousands have learned by mail and you can do the same. Your only expense is for postage and music and will average only 2 cents a day. Drop postal card now for free booklet and Special Free Tuition Offer. Address International Institute of Music, 68 Fifth Ave., Dept. 174 A., New York City.

SAVE HALF THE LABOR

In sawing wood. You can do this and at the same time, cut more wood in a given time than in any other way by using

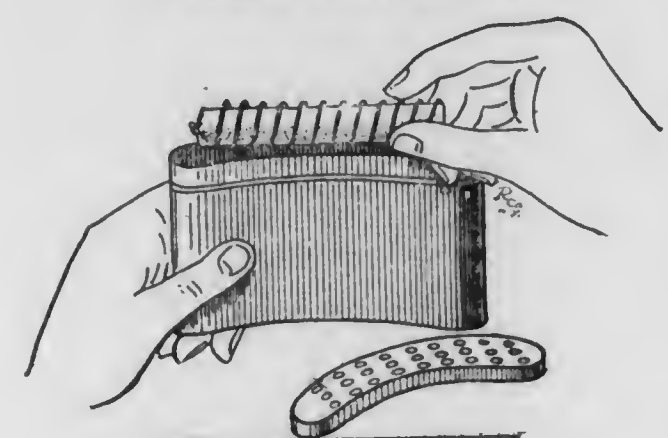


The IRELAND WOOD SAWING MACHINE
Table is mounted on grooved rolls, moves easily—cut of saw is down instead of against the operator as in old style machines. Must be seen to be appreciated. We also manufacture Drag Saws, Saw and Shingle Mills.

Send for prices and full information
Ireland Machine & Foundry Co.,
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SIMPLY LIGHT AND INSERT TUBE

Warmer does the rest



The Welkom Warmer

Size 3½ x 5½ inches, weight 4½ ounces. The only modern, safe, effective and sensible substitute for the antiquated Hot Water Bag.

No water to heat—no rubber to rot. Will last for years.

The Warmer is made of metal heated within one minute by lighting and insertion of a paper tube containing a blazeless, smokeless and odorless fuel generating a uniform heat which lasts over two hours at a cost of less than one cent. It is curved to fit any portion of the body and held in place by means of a bag and belt allowing the wearer to move about at will.

AS A PAIN KILLER

The Welkom Warmer has no equal. It can be put into instant action and is indispensable in cases of rheumatism, lumbago, neuralgia, sciatica, cramps, etc.

Many have been sold—not a single complaint.

Complete outfit including Warmer, bag, belt coil and 10 tubes of fuel sent prepaid to any part of the U. S. upon receipt of \$1.00.

If you wish to know more about this wonderful device write to day for free descriptive booklet.

WELKOM WARMER MFG. CO.,
Dept. 20 108 Fulton St., New York.

LATE FALL PLOWING.

While a great deal of plowing has already been done we should not stop until every foot is turned. Most of the essential features of early fall plowing hold true regarding plowing after the middle of November. The object is to turn a layer of soil loosely to catch snow water and early spring rains. If the soil lies in the compact state as induced by summer rains there is a great deal of evaporation. The particles are so dove-tailed so that much evaporation results.

Paint Without Oil

Remarkable Discovery That Cuts Down the Cost of Paint Seventy-Five Per Cent.

A Free Trial Package is Mailed to Everyone Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powderpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much.

Write to Mr. A. L. Rice, Manufacturer, 47 North St., Adams, N. Y., and he will send you a free trial package, also color card and full information showing you how you can save a good many dollars. Write to-day.

SIX MONEY-MAKING SYSTEMS FREE.

With each advertising course we give, absolutely free, the full and complete plan of six successful Mail-Order plans, with any one of which you can make big money.

Do you know how many "schemes" are to-day being operated on a Mail-Order basis? You perhaps would be surprised at the large number. We do not mean "fake" schemes, but schemes that are perfectly legitimate. At least one-half of all the advertisements in Mail-Order papers are of the "scheme" nature. You may not recognize the "scheme" part but it is there just the same. If you doubt this assertion, carefully read over the ads. in any Mail-Order paper and you will be convinced that the above statement is correct—that one-half of all the legitimate Mail-Order enterprises now being operated and making money are of the "scheme" nature.

Grit, energy and a good scheme makes a combination that can't be beat. And a Mail-Order scheme is the biggest winner of them all. With one of the plans we outline there is one concern that uses—on this one plan alone—1,000 Ingersoll watches each week. Just figure out their profit! With another one of them there is one concern that made \$100,000 last year. We will say further that no plan is outlined that is paying others less than \$10,000 a year each.

As already stated, we intend to give, absolutely free, with each advertising course (and no one else can get them under any circumstances) the complete plan and details of six successful money-making Mail-Order systems.

YET IN ITS INFANCY.

The mail order trade is in its infancy, just as electricity was twenty-five years ago. Its scope is as extensive as that of commerce itself, and great fortunes await those who are shrewd enough to take advantage of the opportunities afforded. When one member of a family goes into the mail trade, he or she can secure the assistance of other members of the family in spare time, thereby making a great saving in clerical and other expenses. Many a profitable mail business is conducted in a home by members of a family.

ALL BEGAN IN A SMALL WAY.

It is a remarkable fact that all the great Mail-Order successes have had their beginning upon small capital; in fact, small capital at start seems to be a requisite.

A young lady in New Carlisle, Ind., a small town, was a stenographer in a law office up until three years ago. She embarked in the Mail-Order business, and now has eighteen persons in her employ. Her profits now amount to over \$300 per week.

There's a young lady in Boston, not more than 23 years of age, who now conducts a monthly home publication which is paying her \$12,000 annually, who got her funds from advertising and selling sachet powder through the Mail-Order trade.

QUESTIONS ASKED AND ANSWERED.

Do I need a license? Not required in any State, city or town.

Will \$10.00 start me? Yes, in a small way.

What do you recommend? ANY-

THING may be sold through judicious advertising. My 6 (six) free plans tell you what you are most likely to make big money on, and they can be worked in city, village or country equally well, and they will start you on the right road to a fortune. I mean this.

Do I have to give all my time at first? Absolutely No. You can attend to your mail and orders in the evening and at your own home. Only a small room required. If you have a position you can keep it until your business becomes so large that it is absolutely necessary to quit your position, and not before.

Do you furnish six plans free and tell me what is best to advertise and sell? Yes, certainly, as I have stated before, and any one of which should net you \$20.00 to \$40.00 weekly, in clean cash, in a small way. Then you can build up your business by reinvesting profits in advertising, to thousands of dollars income every year.

Can your plan be used without advertising so as to make me money? Yes, in a small way, either in city, village or country one could make \$20.00 to \$40.00 per week with any one of the plans I furnish you.

A Complete Mail-Order Instruction Course, telling you exactly how to start and conduct a Mail-Order business, no matter where located. Above are extracts from Mail-Order Book.

This Course has been sold for \$10.00 but we will give it to you, charges prepaid, for twelve yearly subscribers to Blooded Stock at 25 Cents each. If interested, send us the twelve subscribers' names and \$3.00, and we will send you Course of Instruction by return mail. Address,

MAIL-ORDER EDITOR,
BLOODED STOCK,
Oxford, Pa.

Mail-Order Book, sample copies and Blanks free.

CACTI FREE.

10 specimens free with each \$25 order. Dealers take notice—order at once.

Mrs. S. I. Pattison,
Wholesale Collector Cacti,
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Impregnators for Mares and Cows From \$2.50 up. Artificial Impregnators are "Easy to Use." Write for pamphlet. GEO. F. PILLING & SON CO., Philadelphia, Pa.

STUMP PULLERS

Warranted the most practical machine made. One man can lift 20 tons. Made in 3 styles, 10 sizes. Screw, Cable and Hand Power. We manufacture a The Ditcher and best CORN HARVESTER ever made. Cuts two rows with one horse. Agt's wanted. Write for catalog. Box 22, H. L. Bennett & Co., Westerville, Ohio.

I Make the Best Scale on Earth

And I can prove it. Forty-five years ago I commenced selling scales to the user letting him have a free trial and never asking a cent in return until he had found that my scale was exactly as represented. I have patented the only reliable FIFTEEN STOCK SCALES, complete with steel frame, compound beam and beam box without extra charge, sold at a fair price. My scale is not cheapest, but BEST. I will send you full information, a scale on approval or book, "Reasons for Owning a Scale" if you address "JONES like Pays The Freight," 106 C St., BINGHAMTON, N. Y.

CLASSIFIED ADVERTISEMENTS

Two cents per word each insertion. Each letter and figure counts as one word. You can get anything you want. Sell anything you have or exchange for something you want. Cash with copy.

MAIL ORDER INSTRUCTIONS.—If you want to go into the MAIL ORDER BUSINESS you can get complete instructions for a few hours' work. Write for free Booklet. Tells how. Address M. O., Editor Blooded Stock, Oxford, Pa.

FOR THE HOME.

REMNANT LIST.—Pottery, Glass and Enamelware thirds. Stoneware \$1 per barrel from Pittsburgh. Write us. Swazey & Co., Portland Me.

ADJUSTABLE WINDOW REFRIGERATOR.—Iceless. All metal. Put up in five minutes, yet strong and safe. Sanitary. Bishop-DeWaters Co., 203 Pine St., St. Louis, Mo.

RECIPE FOR GENUINE MEXICAN Chili Con Carne as made by natives. Delicious, economical winter dish. Ten cents. P. O. Box 293, Chicago, Ill.

E-Z SUCTION CLEANER.—\$7.50. Lightest, simplest, handiest. Satisfaction or money back. Duryea, Reading, Pa.

MAGIC CLEANER.—Make it yourself, costs only a few cents, removes spots, stains, grease, etc., from garments and furniture. Cannot injure the choicest fabric. Saves dollars. No home will be without it after first trial. Send 10 cents for receipt. Address Mrs. Coventry, 5971 Maple Ave., St. Louis, Mo.

MAKE YOUR OWN FURNITURE.—Write, Home Furniture Pattern Co., 404 Potter Bldg., Birmingham, Ala.

ELECTRIC WASHING MACHINE.—The "Domestic" Washes anything washable, quickly, clean. Without injury at trifling cost. Cash or installments. Send for circular. Domestic Equipment Co., 55 State St., Chicago.

REAL ESTATE AND FARM LANDS.

PILGRIM'S MONUMENT, CAPE COD.—Near this spot I have a few house lots, all surveyed and properly recorded with Registry of Deeds. Would you like to own one of these fine lots on the Atlantic Coast? Sold reasonable and on easy terms. I also have a hen farm near here. Write for information. Lorenzo J. Peabody, Boston, Mass.

FOR SALE.—Grain, fruit, alfalfa, dairy, stock and poultry farms. Healthy climate, society, schools, churches, and transportation ideal. Crops ripe; prices right; terms to suit; postal brings particulars. Write Brown & Fenwick, Perryville, Mo.

FOR SALE.—\$4,000 nine-room dwelling, outhouse, barn and twelve acres highly cultivated land on beautiful drive 4 miles from city of Augusta, thickly populated neighborhood, schools and churches, nearly transportation facilities, lovely climate. Address J. H. Norrell, 1402 Gwinnett St., Augusta, Ga.

NEW COUNTRY OPENED by railroads. Greatest general farming district known in Texas; fine climate. Where Frisco and Santa Fe Railroads meet. Write for information. Richey-deFreest Land Co., Wheat Bldg., Ft. Worth, Texas.

SOUTH GEORGIA bottom lands. Pecans, fruit, poultry, vegetables. Only \$18.50 an acre. \$2.50 an acre cash and \$1.00 per month. 5 acres or more. Title perfect. No interest or taxes. Write Parker & Parker, No. 42 Cleveland, Ohio.

A PROFITABLE INVESTMENT.—80 acres timber and grazing land for sale cheap; 5 miles from Taneyville, Mo.; will advance rapidly in value. Price, \$600; \$100 down, balance \$10 per month. O. J. Kunz, 3444 Iuka St., St. Louis, Mo.

640 ACRE WYOMING stock ranch, 60 acres alfalfa, well improved, gravity water works, \$12,500. Would take stock merchandise, preferably western state equal or less value. W. E. Bramel, owner, Sundance, Wyoming.

160 ACRES WELL LOCATED. 100 acres Elegant Wheat Land. Price, \$800.00. Owner must have \$80.00 cash; \$320.00 can run from one to five years. Will take automobile if good for \$600.00. Kingery Realty Co., Kingery, Kansas.

DON'T PAY RENT. Own a farm. Particulars free. Write John McGeehe, 105 West Main Street, Urbana, Ill.

COME TO THE GREAT Artesian Belt in Texas, where strawberries are ripe at Christmas, where we grow figs, dates, oranges, lemons, olives, grape fruit, and many other semi-tropical fruits, alfalfa, sugar cane, and two good corn crops each year. We will pay good commission to an agent in every county. Land sold on your own terms. Write for free transportation offer, Security Title and Guarantee Company, 201 E. Houston St., San Antonio, Texas.

FARM HOMES in Sunny South at fraction usual cost through Co-operative Land Clubs. Colony of 600 successfully located. New club forming. Desirable members invited. Edw. Miller, Ruskin, Fla.

RARE COINS AND STAMPS.

\$7.75 PAID FOR RARE DATE 1853 Quarters. \$20.00 for a Half-Dollar. We pay a cash premium on hundreds of coins. Keep all money coined before 1880, and send 10 cents at once for our New Illustrated Coin Value Book, size 4x7. It may mean your fortune. C. F. Clarke Co., Coin Dealers, Dept. 14, Le Roy, N. Y.

COINS AND STAMPS WANTED.—Even commonest kinds that other dealers don't buy. Booklet 14 mailed free. Royal Money and Stamp Co., 150 Nassau, New York.

250 DIFFERENT STAMPS.—500 hinges and album, 25c. Wright, 35 Norton St., Dorchester, Mass.

\$2.00 WORTH OF RARE stamps for 25c. Palmer Stamp Co., Box 134 Thorndike, Mass.

STAMPS CATALOGUE \$2.50 mounted and priced, postpaid, 25 cents. J. E. Grafton, Newark, Ohio.

STAMP CATALOGUE: 100 different foreign stamps, 8c. Powell Company, Storm Lake, Iowa.

STAMPS, 200 ALL DIFFERENT, 10c; 30 Italy 10c; 30 Sweden 10c; 20 Japan 10c. F. L. Toupal Co., Chicago Heights, Ill.

SALE OR EXCHANGE.

WANTED TO EXCHANGE portable roller rink for automobile, 50x30 waterproof tent, 40x70 hard maple floor, 150 pair skates, etc. Rink now in operation, in excellent condition. Will invoice \$1,200.00. Hammer Bros., Lamoni, Iowa.

STATIONARY SAW MILL with novelty works and established trade. What have you to offer? Reason, other business. Box 302 Dresden, Ohio.

4-PASSENGER STEAM AUTOMOBILE, in good condition, \$500.00, or exchange for upright piano. Vallance Co., Elkhart, Ind.

MAKE OFFER for four unit Splitdorf Coil, good condition. Will trade for small motor. T. H. Lawrence, Ogdensburg, N. Y.

EXCHANGE billiard table and accessories for good motorcycle. Write for particulars. Address M. Rogers, 515 North 64th Ave., Oak Park, Ill.

DEMOISELLE AEROPLANE COMPLETE; want roadster automobile. Slingerland, Howe Cave, N. Y.

WILL EXCHANGE my Peloubet Reed Pipe Organ, cost \$1,000, for automobile. W. J. Bailey, Madisonville, Ky.

EXCHANGE 6 CYLINDER CRANK Shaft for 2 H. P. marine engine or 12 inch engine lathe. Nicholas Stromer, Gillett, Wis.

MACHINERY AND TOOLS FOR SALE.

FOR SALE.—10 H. P. Mason steam engine, \$300.00; 10 H. P. Whitney steam engine, \$350.00; 4½ H. P. Locomobile steam engine, \$200.00; 10 H. P. Lane Steam engine, \$150.00. All kinds steam supplies. R. Roth, 1423 North Ave., Bridgeport, Conn.

FOR SALE.—One 1 H. P. Wagner, 110 Volt, alternating current, sixty cycle, 1750 Rev., good as new, cheap. Machinery Sales Co., 17 East Woodbridge St., Detroit, Mich.

FOR SALE.—A good ¾ Callahan vertical boring mill with one swivel head on rail; all automatic feeds; \$550.00 cash. Full line of other machine tools. Western Machinery Co., 6th and Baymiller Sts., Cincinnati, Ohio.

1½ H. P. 2 CYCLE GASOLINE ENGINE, for pump and small machinery. Price \$300.00. J. H. Pardon, Harrison, Ark.

TWO CYCLE TWO CYLINDER, 4x3½. Marine and stationary gasoline engines, 10-12 H. P., at \$84.00, including coil, carburetor, etc. Castings and drawings for sale of same. Richards Iron Works, Manitowoc, Wis.

TWO 2½ H. P. and three 4 H. P. Buckeye gasoline engines at cost to move immediately. The Osborne & Sexton Machinery Co., Columbus, Ohio.

TELEGRAPHY.

LEARN TELEGRAPHY THOROUGHLY, quickly. Thousands of operators wanted. Endorsed by railway officials. Main line wire. Wireless station. Catalog free. Eastern Telegraph School, Box 50, Lebanon, Pa.

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\$3,000.00—REPRESENTATIVES WANTED.—We want one reliable man to represent us, after thoroughly learning our business through correspondence course of instruction. Location anywhere. A man of fair ability may make \$3,000 to \$5,000 yearly. Co-operation the watchword. We furnish free plans and advertising matter. We tell you in our large instruction Book how to become our representative and make big money without leaving home. It tells you of General Brokerage, Realty, Investment and Real Estate Advertising. Large Booklet and Instruction Blank free. Ask for them. Have a business of your own without capital. Write to day.

MUTUAL REALTY CO., B. S. 150 Nassau St. New York City.

BLOODED STOCK for November.

MISCELLANEOUS.

CLERKS, TINNERS, MACHINISTS, Painters, Draftsmen, "Lay out," your own letters and figure; our E-Z System book. Teaches you in thirty minutes, not a stencil system. Price, \$2.00 prepaid. Southwestern School of Letters, Waco, Texas.

3,000 FORMULAS, RECIPES and trade secrets. Our 370 page cloth bound volume only 40c. prepaid. Satisfaction guaranteed or money refunded. Special offer. Mention Blooded Stock and we will include free our complete \$1.00 Instructions to Renew Old Dry Batteries. Weissgerber, 3453 N. Hamilton, Chicago.

BUILD YOUR OWN Storage Battery. Conrad Storage Battery Parts are easily assembled by any one. Has steel case. Heavy hard rubber jar, best of grids and plates, patented vent and non-corrosive binding posts. Absolutely guaranteed. Useful for Lighting and Ignition work, as well as for Wireless Stations. Quantity contracts solicited. Circular and prices on application. A. M. Supply Co., 225 Dearborn St., Chicago.

MECHANICS, STUDENTS, MERCHANTS, Clerks, everybody. Does your memory sometimes fail you? Do you forget important things which you wish to remember? My book "Don't Forget It" will enable you to recall anything you wish to remember. Over 100 pages. Cloth bound, 25 cents. Leather, 50 cents. A. P. Morsley, P. O. Box 172, Allentown, Pa.

MOTORCYCLES.

K & R TWO-SPEED conversion set, used less than 25 miles, will fit and belt-drive motor motorcycle. \$40.00, cost \$60.00. Set of special rear stays for use with above to fit Merkel, \$10.00, cost \$20.00. New M-M side car complete, \$50.00. 1909 M-M Magneto Special Motorcycle, excellent order \$100. Callwell's Motorcycle Agency, 10 Colden St., Newburg, N. Y.

MOTORCYCLES.—Enormous variety American and foreign makes—Marshes, Indians, Reading Standards, low as \$25.00. All guaranteed. Immediate delivery. Send for large illustrated bargain bulletin. New York Motor Car & Cycle Exchange, 215 West 125th Street, New York City.

JUST PRINTED, ILLUSTRATED CATALOGUE of used motorcycles, all prices reduced this winter. Largest stock for your selection in the South. Enclose three cents stamps. Don't hesitate to write. Rubel Co., Louisville, Ky.

40 SECOND-HAND MOTORCYCLES, all makes, \$35 up. Each one sold with our full value guarantee. Tiger Cycle Works Co., 782 8th Ave., New York City.

FOR SALE.—Nickel-plated spokes and nipples for motorcycles at low prices. R. Roth, 1423 North Ave., Bridgeport, Conn.

AUTOMOBILES.

FOR SALE.—7-Passenger Model G White Steamer reupholstered, repainted, new top, electric lighted, speedometer, gas tank, every equipment. Will sell cheap. Apply 531 South Peoria St., Chicago, Ill.

AUTOMOBILES.—All models, lowest prices for immediate delivery—Buicks, Fords, Maxwells, Oldsmobiles, Cadillacs, Packards, and hundreds of others. Two-passenger Runabouts, \$95.00; three-passenger roadsters, \$190.00; four-passenger Roadsters, \$250.00; five-passenger cars, \$295.00. All guaranteed. 5 per cent discount and \$10.00 electric horn free. Write now for latest illustrated bulletin. New York Motor Car & Cycle Exchange, 215 West 125th St., New York City.

AUTOMOBILE INSTRUCTION, four weeks' course covering shop and road work—provision for out-of-town men. Send for booklet P. M. West Side Y. M. C. A. Automobile School, 318 West 57th St., New York City.

ELECTRIC AUTOMOBILES SACRIFICED, unheard-of offer. Any standard make. Wood's, Baker, National, Columbia, etc. Any of these high-grade machines we will sell for \$100. Heery Machine and Battery Works, 916 E. 43d St., Chicago.

LARGE STOCK of used automobiles, must be sold this winter at very low prices. Catalogue for stamp. Rubel Co., Louisville, Ky.

MANUFACTURING MACHINERY. DO YOU WANT to build small gasoline engines? We want to get in touch with some one who is, or can prepare to build two sizes of gasoline engines; largest weighing 800 pounds. Have complete patterns and drawings; splendid proposition to keep your factory busy. The Cyclone Drill Co., Orrville, O.

WE ARE PIONEERS in the manufacturing of Sheet Metal Goods, Pressed Steel Products, Metal Stamping, Dies, Tools, Models, Patterns, Novelties and Specialties. We manufacture and find a market for any good patented article. Chicago Model Supply Co., 1633 Clybourn Ave., Chicago.

IRON, BRASS AND ALUMINUM CASTINGS.—Metal Specialties. Patterns, Models. Polishing, Plating and Japanning. North Chicago Tool Works, North Chicago, Ill.

INVENTORS.—We will develop your inventions, make your models, dies, tools; also manufacture anything. Geo. Schwarz & Co., 123 Liberty, New York.

BLOODED STOCK for November.



CEMENT WATERING TROUGH.

It is an easy enough matter to have a watering trough work all right in the summer time, but it is not so easy to get it to work properly in the winter time. If it wasn't for the frost in the winter we could get along with a great deal less expense on farming in Michigan than we do now. I don't know as we would make any more at farming, because knowledge that there will be frost in the winter makes us hustle and prepare for that time, and possibly it's a good thing for us. However, philosophizing does not do away with the necessity of trying to provide some means of keeping a water tank from freezing in the winter and spoiling it. Now, a wooden tank is not very good. It has to be protected by packing straw or horse manure, or something of that sort around it. Even then it is quite a proposition to keep it from freezing. I have seen large wooden watering tanks that were practically encased in a little house with a roof, with doors that lifted up, and this housing of the watering trough prevented it freezing, even in quite cold weather, but the house constructed in this way is a short-lived affair and rots readily. I have a plan which I contemplate putting in practice for a watering trough for the young cattle. The old barn which I have rigged over into a heifer and calf barn, I do not propose to put in a drinking trough, but will turn the

young stock out every day to give them some exercise. While I do not think a great deal of exercise is necessary for a cow giving milk, I do believe in exercise for young growing animals. I wouldn't care to have watering buckets put into the heifers' mangers. I want them to go out every day. I propose to make quite a large cement watering trough out of hollow cement blocks. We will dig a trench in the ground a couple of feet deep, to get below the frost, so as to have a good, solid foundation, and of course fill this trench with solid grout, with the surface the bottom of the tank. Then put on eight-inch hollow cement blocks. Lay them in cement, put in reinforcing wires between each layer, and build it up three feet high, then, of course, plaster it on the inside with a good coat of rich cement mortar to prevent it from leaking. Now I propose on top of the cement blocks to put on a two by eight for a sill for the house above. This will be fastened on with bolts, then we will put up the studding, and raise the house up some three or four feet. Put on a comparatively flat roof and have doors that will double in, put a couple of boards and tar paper between, that will let down in the night to protect the trough from freezing. With good tight doors and a good tight roof, and on this roof I propose to put cement, which will not only shed the rain, but will hold all the heat, and I am of the opinion that

hollow cement blocks will prevent the water in the trough from freezing very much, even in the coldest weather.

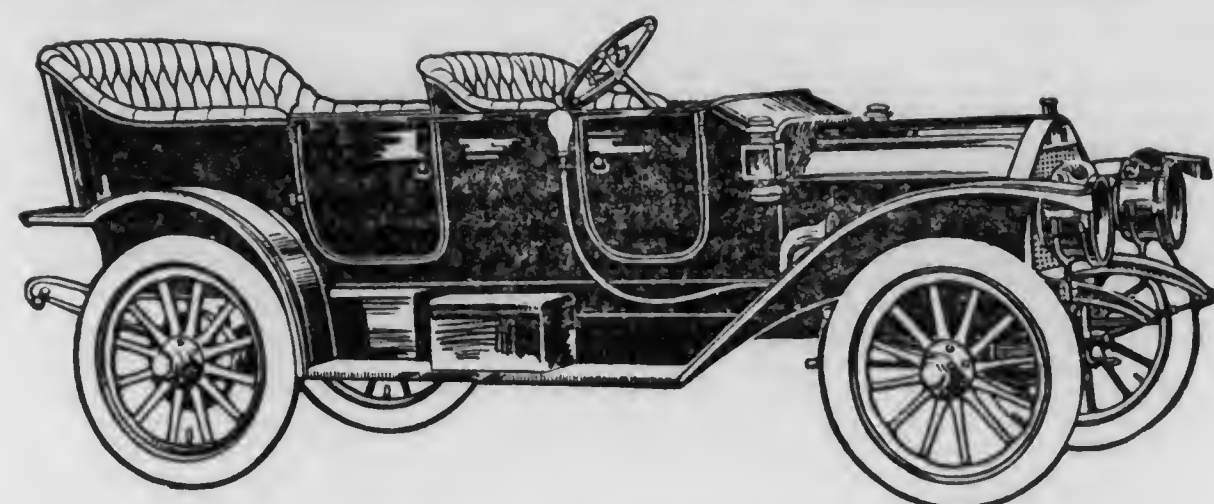
LIME AND MANURE.

Under "How to Tell Whether Lime is Needed," the Ohio Experiment Station suggests that whether it is lime or humus that is needed may easily be determined by dressing a strip across the field with manure, and one at right angles to that with lime, the manure, of course, to be ploughed under before the lime is applied. This should be done at least a year before sowing the clover seed. If there is a visible improvement in the clover crop on the limed strip, and especially where this strip crosses the manured strip, then it may safely be assumed that liming will pay. In most field experiments it will not answer to depend upon the eye alone to measure results, for a difference of a few bushels per acre can not always be detected by the eye; but in the application of lime to clover the most luxuriant growth on the limed land—if lime is needed—is usually such as to leave no room for mistake.

The Way to Economize.

(From the Washington Post.)

Might be a good idea in economy to make some kind of target-practice out of all the salutes that are fired.



Enger "40" Torpedo--\$2150 Modern Methods Reduce Cost

*The Enger "40" Was Impossible Before
Enger Conditions Were Created*

MODERN METHODS— VS. MANUFACTURING COST

Every great reduction in the cost of a manufactured product is largely due to the introduction of modern organization—and modern machinery.

A system built on these modern principles is responsible for the Enger "40."

Such a car could not be built under any other system.

A new factory—a new organization—a new car—plenty of capital—and the world's automobile knowledge and experience—brought out the Enger "40."

These ideal conditions are responsible for the Enger "40"—which has set a new basis for car value.

ANY CAR WOULD BE BETTER IF ENGER-BUILT

The Enger Motor Car Company realized they would have to build a good car to win—with so many other makers in the field.

That is why Enger manufacturing conditions were established.

These conditions made these specifications possible in a \$2000 car—40 horsepower—116 inch wheel base—big wheels—and a strong, roomy, but light weight body.

There are six Enger models—the Torpedo 40—the most beautiful body design of this popular type—the five-passenger touring car and roadster are most luxurious in room and comfort.

They are in a class by themselves. All 40 H. P.

The Enger Motor Car Co.,
Gest & Summer Sts., CINCINNATI, OHIO.

THE TIME WAS RIPE

Motorists welcomed the Enger "40." It was automobile news to them. For it gave them a new insight into car values—and into the prevailing conditions of a great industry.

All owners of small, medium-priced cars want big cars—with more power—that they can buy for a fair price.

The Enger "40" is the only solution. Enger cars meet every desire. The line is complete.

We offer a 5-passenger touring car (fully equipped for only \$2000—a 4-passenger Torpedo for \$1750—a 4-passenger Touring car for \$1700—a 40 H. P. Roadster with Torpedo front for \$1650—the Enger Roadster for \$1600.

These models are ready for delivery.

LET THE ENGER "40" BE YOUR CRITERION.

In judging other cars let the Enger "40" be your criterion.

Then we know if you stick to the standard set by the Enger—by which you gauge the worth of other cars—you will buy an Enger "40."

It will eliminate cars far above its price.

This comparison—and investigation—will convince you that the Enger "40" has all the soundest principles of motor construction—and all the proven late ones.

When you realize the wonderful value in this car—you will buy the Enger—built under modern cost-reducing conditions.

Let the Enger "40" be your standard. Send for catalog today.

THE BLOODED DAIRYMAN AND POULTRY RAISER



Master of human destinies, am I.
Fame, love and fortune on my footsteps wait;
Cities and fields I walk—
I penetrate deserts and seas remote;

And passing by hovel and mart and palace,
Soon or late, I knock unbidden once at every gate.
If sleeping wake, if feasting rise!
Before I turn away,
It is the hour of fate.

And they who follow me reach every state mortals
desire;
And conquer every foe save death.
But those who doubt or hesitate
Are condemned to failure, penury and woe—
Seek me in vain and uselessly implore—
I answer not—
And return no more.

John J. Ingalls.

Volume XVI

Number VIII

PUBLISHED MONTHLY AT
OXFORD, - PENNSYLVANIA
Twenty Five Cents a Year One Dollar for Five Years

October
1910

Blooded Stock, The Eastern Farmer, Dairyman and Poultry Raiser October, 1910

SUBSCRIPTION—25 cents a year; five years for \$1.00. Single copy 5 cents. Discontinued at end of paid subscription. Samples on application. Canada subscription 12 cents extra.

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HOW TO REMIT—Send money by Postal Money Order, Express Order, Bank Draft, or Registered Letter. One and two cent postage stamps in good condition accepted for small amounts.

CHANGE IN ADDRESS—When ordering a change in address be sure to give former as well as present address.

ADVERTISING RATES—15 cents for each agate line, each month. 5 per cent. discount for cash with order. Average seven words to a line. Fourteen agate lines to an inch measure.

OUR ADVERTISERS—We believe that every advertisement in this paper is backed by a responsible person. But to make doubly sure we will make good any loss to paid subscribers sustained by trusting any deliberate swindler advertising in our columns, and any such swindler will be publicly exposed. We protect subscribers against rogues, but we do not guarantee to adjust trifling differences between subscribers and honest, responsible advertisers. Neither will we be responsible for the debts of honest bankrupts sanctioned by the courts. Notice of the complaint must be sent us within one month of the time of the transaction and you must have mentioned *Blooded Stock* when writing the advertiser.

EDITORIAL DEPARTMENT—The editors are always glad to examine manuscripts suitable for publication in this magazine. Photographers are invited to submit photographs of subjects pertaining to any phase of farm life. Stamps should accompany both manuscripts and photographs to insure their return, if they are not accepted.

Printed on the first day of each month by L. H. Hitchler.
Entered at the Post-office at Oxford, Pa., as Second-Class Mail Matter, May 27, 1899.

OF INTEREST TO YOU

THE TOLL EXACTED BY CRIME.

The taxpayers of New York, as well as some of the smaller cities of the state, are beginning to awake to a realizing sense that there is something vitally wrong in the prevailing system of preventing and punishing crime.

Statistics which were collated by the late Eugene Smith, president of the New York Prison Reform Association, indicate clearly that too large a percentage of municipal revenue, in the larger cities especially, is distributed in the attempt to restrain and punish crime.

Mr. Smith showed that in one year, selected as typical, almost \$13,000,000 was charged to criminal administration in the city of New York. That is—to be more explicit, and not to characterize the administration itself as criminal—the expenditure in the attempt to prevent crime and to punish crime amounted to that sum. It does not include the amounts said to have been contributed for the protection of crime.

Three courts in New York City have to do with criminal cases: The Court of Special Sessions, the City Magistrates' Courts, and the Court of General Sessions. The aggregate cost of the administration of these three courts was given as \$629,724. The cost of the Police Department, exclusive of the courts, was placed at \$11,263,875. The district-attorney's office cost the peaceable, non-criminal taxpayers \$248,473, and the Department of Correction \$716,466. The Special Commission of Jurors cost \$30,266.

These figures do not include expenditures by other departments of municipal administration, a certain percentage of which was made necessary by the presence of crime, its prevention and punishment.

It is probable that the people of New York, and of other cities as well, would submit to this enormous drain upon the city's resources with better

grace if it could be shown that the expenditure was necessary. There is a lurking suspicion that if courts, district-attorneys and the police performed their duties faithfully, and did not exploit some of those departments for improper purposes, the startling figures given by President Smith would not assume such enormous proportions.

Is the world getting better? Will there ever be an end to such really unnecessary expenditures? Will humanity never behave because it's for the good of all to live decent, honest and honorable lives?

A CONTRACT IS A CONTRACT.

Indiana Follows Michigan Supreme Court Decision.

The International Harvester Company of America, recently brought suit in the Circuit Court of Dekalb county, Indiana, at Auburn, to recover the proceeds of sales made under the terms of a commission agency contract. The defendant pleaded that the International is an "illegal combination," and that therefore the contracts with him were void and of no effect.

Hon. S. E. Cook, Judge of the Circuit Court, on October 19, rendered a decision that the "trust" or "illegal combination" defense is not a good defense, and that the contracts are perfectly legal and the proceeds collectable.

This follows the decision of the Supreme Court of Michigan, September 28, 1910, in a similar case.

Pleading the "baby act" is neither good law nor good morals. Swiftly the Courts of the country are going on record that a debt is a debt, and a contract a contract.

Good seed plus good soil, plus good cultivation (frequent, but shallow) equals a good corn crop. To omit any one of the factors is to invite failure.

DANGER IN CROWDING SHEEP.

Having suffered much loss from crowding the sheep, I will try to save others from making such a mistake, although I could not do better at the time for the lack of barn room.

A ewe lambing in cold weather should have a stall in the barn for herself and lamb alone, until the lamb is about two weeks old. Many a poor little lamb is killed by putting a whole bunch of ewes into a small pen with their young lambs, which are so frail as to be unable to stand alone. In the night all is confusion and each lamb grabs the first sheep it comes to by the teat but the old dam does not need a light, nor eyes, either, for that matter. She smells of the suckling thing and, if not her own, gives it a kick, stamps around and onto it and butts it against a post. It goes to the next sheep with the like result, and the next lamb fares the same. Each night terminates with a disaster. I would say, "What is the matter with my lambs? Last night all were lively and bright, and in the morning two or three are dead." Now I need not ask; I know what the matter was. But, as in all things, "practice makes perfect."—Mary Dvorshak, in *The Farmer*.

It is a great mistake to keep sheep in a warm pen in winter. Their fleece protects them, and if they are kept dry they will require nothing else.

You can generally tell a sheep farm by its neat appearance. The sheep keep the corners pretty well cleaned up.

The sole object in raising early lambs is to produce a fine animal of good size and flesh, and get him to market at the earliest possible moment. To do that requires good feeding, good care and good management from the time he is born until he is sent to market.

BLOODED STOCK for October.

SHOEING THE FARM HORSE.

By C. L. Barnes, Colorado Agricultural College, Fort Collins.

The farm horse is generally an all-around-purpose animal, and, for this reason should be shod. In addition to its being obliged to do the ordinary farm work, it is also used for hauling farm products to market, and for a pleasure animal for the family.

Traveling on the hard roads would soon cause the feet to become sore if left unshod, later lameness, and loss of the use of the horse.

The farm horse should be shod with a moderately heavy shoe, one that will be durable and protect the feet. The shoes should have low calks in order that the frog may touch the ground. In winter the calks should be sufficiently long to get a good foothold on the slippery roads. If the feet are obliged to have shoes with the long calks for 3 or 4 months, then a bar shoe is to be recommended.

Just as great care should be taken with the shoeing of the farm horse as is taken with a valuable race horse. The feet should be perfectly leveled and placed at an angle of from 45 to 50 degrees for the front feet, and from 50 to 55 degrees for the hind ones. The shoes should not be fitted hot as they are likely to start diseases of the feet which might cause trouble later. The shoe should be attached to the foot with as small nails as will be necessary to hold it in place. Then as in shoeing all horses, the nails should not be drawn too tightly and pinch the sensitive structures.

It is best to have the shoes reset every four to six weeks. If the horse can be kept off the road during the summer months, have the shoes pulled off and allow the feet to come down to the ground and get the natural frog pressure. The feet should be kept growing; then there will be very little trouble from the feet getting dry. Oil the coronary band of each foot twice a week. This band is located just underneath the hairline. It forms the horn of the wall, and if a new hoof is produced normally, the foot will not have time to become too dry.

GOOD GOVERNMENT FARMS.

The U. S. Reclamation Service, Washington, D. C., has as yet allotted several choice farms, all under water rights, and in settled localities, where crops are sure. There are in Montana 309 farms; in South Dakota 60; in Wyoming 257; and in Oregon 70. Write the Statistician, U. S. Reclamation Service, for descriptive pamphlets concerning these farms.

More farmers than we know anything about, break themselves down eating too fast in the rush season of the year. They come in hot and tired and sit right down to eat a lot of victuals and drink all the cold water they want right along with the food, and the result is positively dangerous. The strongest man will surely come to grief by following such a practice. Rest a little while before every meal and sit or lie still a few minutes after the meal is over.

NOT A COSTLY ARTICLE.

The automobile is not an expensive luxury to farmers. The time saved in going to town, and doing the necessary traveling which every progressive farmer must do, will go a long way toward paying for the machine. The great satisfaction and comfort which the children and wife obtain on a farm where an automobile is kept, is an item that is well worthy of serious consideration.

There is altogether too much solicitude on the part of the bankers and others because farmers are buying automobiles. If the farmer who is out of debt, pays cash for his machine, instead of putting the money into securities which may prove of questionable value, what business is it to bankers? The cash paid for these machines is not taken out of circulation, as it gets back at once into the channels of trade.

A subject which should be of vastly more concern to bankers and business men is the great amount spent annually for intoxicating liquors, estimated at \$2,500,000,000 a year. Most of this is wholly unproductive. The suffering, misery and crime caused by strong drink are a greater drain upon the resources of this nation than all other forms of expenditure.

A La Salle county, Illinois, man, states that he realized \$270 during the past year on the progeny of one sow.

It is a revelation to men who have kept their hogs shut up to let them out on grass and see how much they will eat. Good for them, too. They will get a good share of their living from grass if they can have it.

Don't put much straw in the pen when you are looking for little fellows. They will get tangled up in it and killed.

At Omaha, a few days ago, prime bacon sides sold at 40 cents per pound.

Three men were hurt, and 200 head of cattle were burned to death in a train collision near Calhan, Colorado. The collision caused an oil car's contents to be dashed over the animals, and an engine spark ignited the oil.

Eight oxen and about a dozen pigs were roasted whole at open fireplaces in the main streets of Stratford-on-Avon recently for the statute fair, which has been held since Elizabethan times.

There is no excuse for keeping poor cows since the invention of the Babcock tester. It only takes a pair of scales, which cost 50 cents, and a tester, which costs \$4.50, with a little patience, to find the poor cows in the herd.

A prolonged dry spell is the best road maker, and this should teach us that to get rid of the water is the first step in road making. If a certain per cent. of the road money could be set aside for tiling the roads even though it were necessary to go upon the adjoining land to get an outlet it would be better than piling more dirt on the grades where the water can not be carried off by drainage.

BE CHEERFUL.

No one prefers to give his order to a grouch. No one selects a man with a grievance to make a sale. No one chooses to do business with a sore-head.

A smile removes obstacles, overcomes obstacles, inspires faith, and paves the way for business.

Cheer spells confidence. Confidence spells success. Men who succeed are cheerful.

Gloom spells trouble. Trouble spells failure. Men who fail are gloomy.

Cheer is an asset. Gloom is a liability. It is good business to associate with men who are solvent.

Be cheerful—as a business proposition.—"Success."

TO BE OR NOT TO BE.

I sometimes think I'd rather crow And be a rooster, than to roost And be a crow. But I dunno.

A rooster he can roost also, Which don't seem fair when crows can't crow, Which may help some. Still, I dunno.

Crows should be glad of one thing, though;

Nobody thinks of eating crow, While roosters, they are good enough For any one, unless they're tough.

There's lots of tough old roosters, though.

And, anyway, a crow can't crow, So mebbe roosters stand more show. It looks that way. But I dunno.

—California Poultry Journal.

T. P. O'Connor, the witty Irish parliamentarian, discussed at a dinner in New York the bull.

"The bull," said he, "isn't confined to Ireland. It was an Englishman, you know—an English judge—who, being told—by a tramp that he was unmarried, replied: 'Well, that's a good thing for your wife.'"

"And it was a French soldier, who, sleeping in his tent with a stone jar for a pillow, replied on being asked if the jar wasn't hard: 'Oh, no; I've stuffed it, you see, with hay.'"

"And it was an American politician in New York who cried the other night from the tail-board of a dray: 'If we remain silent, the people will not hear our heart-rending cries.'"

In the second instalment of Robert Hichens' "The Dweller on the Threshold," which is, of course, the fiction feature of the December Century, the unfolding of the tale shows even more clearly than the earlier chapters that the story is written around the seemingly supernatural influence which one human being sometimes exercises over the will of another. Interest will be keen to follow Mr. Hichens' working out of this fascinating problem. "The dweller on the threshold," Mr. Hichens explained in a recent letter, is, of course, the soul contemplating its double. As an experiment The Century is in this tale putting forth a story in six instead of twelve parts, and giving also a three-part story, "The Surprising Madame Dubose," by Lillie Hamilton French, which, besides its vivid and entertaining action, may be called "a biography of a French village."

THE COW AND THE DAIRY

CHEAPER MILK PRODUCTION.

Cheap milk production should be the theme of every dairyman. The cow, the food and the care are the main channels to this end. All should be studied. Neglecting any one will mean loss. The cow should be a dairy animal, and, knowing that to keep her means expense, the net profits should come through her production over and above cost of feed and care.

The cow is the first and most important channel for milk production. In the corn belt it costs from \$25 to \$35 to feed a cow one year, and her care will cost close to \$25, then the total cost is about \$60, and to reduce this without lowering the production means good feeding and care. The cow that produces 125 pounds of butter-fat per year will return \$31.25 for butter-fat at 25c per pound, \$8 for skim milk, \$5 for a calf and \$10 for fertilizer, making \$54.25 in total. Such a cow, it will be seen, can make little or no profit. The price of the calf is low, but it is quite the average for the country over, and only pure bred stock can make a better showing on values of calves. Such a cow would hardly cost \$30 to feed, and no doubt her care would be less than \$25 per year, but the profit, if any, would be very small, and her keeper would be doing a very poor business.

It may be said that it is not necessary to keep such cows, and of course it is not, but we must remember that two-thirds of the cows of the country are of the 135-pound kind, and so long as this is true, there is need for improvement. The feeding of the cow is neglected fully as much as the kind of cow and, in nine cases out of ten, the cow is underfed, and not supplied the food necessary for her greatest profit. Good feeding means supplying the animal with required nutriment at the least possible cost. The roughage is of the most importance and should be produced on the farm. Silage, alfalfa, clover and roots should be the principal crops of this kind, and the manure from the yard will insure large yields.

The silo I consider of the greatest importance in reducing the feed bill, and this forage with alfalfa hay, should make up at least two-thirds of the bulk of the feed given. For grain and mill stuff, the price should determine what feeds to choose and here a knowledge of feeding is required. In general corn, bran and oil-meal will be found the best and cheapest. The grain should be given in amounts consistent with the animal's ability to handle the food. In general they should have what they will eat up clean and not gain in body weight. A dairy cow should not be fattened, although she should be kept in good condition.

In the corn belt milk can be produced as cheaply, or more cheaply, than in any section of our country, but I am free to say that I believe it is not being produced, and the principal cause is due to its being a side issue where it does not receive the care and study required to make it

pay. With business methods applied to dairying and study given the cow, her feed and care, the land of corn and alfalfa can produce milk at the lowest cost and greatest profit.—A. L. Haecker, University of Nebraska.

RESULTS OF STUDY.

More Money From the Same Cows, Through Systematic Weighing.

Dairymen who are weighing the milk from each cow every day and that their returns are much larger than formerly, when they followed the old custom of guessing at the amount in the pail, froth and all. It takes but a few seconds' time to weigh the milk and make a record of it, if convenient scales and blanks are at hand. The most convenient scale is a spring balance, weighing to sixty pounds by tenths, having an adjustable hand which may be set to balance the weight of the empty pail. The record sheets need to be convenient and have sufficient space for the figures.

The Dairy Division of the Maine Department of Agriculture has had so many calls for blanks they have had some printed, to be furnished to Maine dairymen on application, the only condition being that at the end of the weighing year the monthly totals for each cow shall be copied on a special blank furnished by the department, and sent into the office at Augusta. Maine dairymen desiring these blanks may obtain application cards for them by addressing R. W. Redman, State Dairy Instructor, Augusta, Maine.

SIRE NOT "HALF" THE HERD.

This is one of those old chestnutty sayings that has been with us so persistently that we have come to believe it, notwithstanding the fact that it is not true, says Pacific Dairy Review. The fact is that when we speak of herds the sire is the whole herd, as the sire is, so must the future herd be. There is no half-way business about it. The man who breeds to poor sires will have a poor bred herd just as sure as the man who breeds to good sires is sure to have a good herd. The sire may be half of the first generation of his descendants, depending upon his prepotency, but a dairy herd is not a matter of a single generation of cows. It is pretty much a matter of keeping everlastingly at it and sooner or later the whole herd must be like the sire, either all good or all bad.

THE INTERNATIONAL DAIRY CONGRESS.

To the Editor: The general secretary of the 5th International Dairy Congress, Dr. Chr. Barthel, has asked me to call the attention of American students of dairying to the work of the Congress, and to urge that as many as possible make an effort to attend its meetings. He has also sent a package of the preliminary programs of the Congress, most of which have already been distributed. I shall be glad to send the remaining copies to interested parties

upon application.

The Congress will be held in the city of Stockholm, June 28th to July 1st, 1911, and will be devoted to the discussion of modern problems of dairying, under two sections: (1) milk production, (2) treatment and consumption of milk and dairy products. Like the dairy congresses held heretofore, the coming one will doubtless be attended by the main dairy workers and scientists in the world, and will furnish a unique opportunity for conferences and meeting with men whose life-work lies in the study of dairy problems, and the practical working out of these problems. The Swedes are proverbially good hosts, and Americans who are so situated that they can attend the sessions of the congress, may look forward to a most enjoyable stay in the beautiful capital of Sweden, which is often referred to as the "Venice of the North."

The excursions arranged for in connection with the previous congresses have been of great interest and benefit to the members of the congress, and this will doubtless be true also in the case of those arranged for in connection with the Stockholm Congress. The main offices and factories of the DeLaval Separator Company are located at Stockholm, and arrangements will very likely be made to visit these as well as other plants of interest to dairymen in or around Stockholm. At the close of the congress proper, the State Agricultural and Dairy Show, at Oerebro, will be visited, and after that three large excursions have been arranged for, two of which will last four days, and the third seven days. These will enable the members to become familiar with Swedish dairying in its various phases, as well as with some of the fine scenery of the country. Incidentally the congress will furnish an opportunity for members to make the acquaintance of hospitable and wide-awake people who are enthusiastic students of dairying and are among the leaders in the dairy world.—F. W. Woll, Wisconsin Experiment Station.

It isn't enough to rinse the milk-pails out at the pump with cold water, turn them down and call it done. Every single time good hot water ought to be used to kill the germs which multiply so fast this season of the year.



The GUERNSEY COW
Her Dairy Products have Scored the Highest Quality and Best Color
Full information of this fine breed of GUERNSEY CLUB, Box Y, Peterboro, N. H.

SPECIAL DAIRY INSTITUTES.

The increasing interest in Maine State Dairying has called for so many lectures on dairy work, that the Commissioner of Agriculture has decided to hold Special Dairy Institutes in the various counties in the State. These Institutes will take up matters pertaining to dairy work. Exhibits of butter and cheese are invited for scoring and judging.

The list of speakers will include A. W. Gilman, Commissioner of Agriculture; Leon S. Merrill, Director Extension Work, University of Maine; P. A. Campbell, Professor Animal Husbandry, University of Maine; W. G. Hunton, President, Maine Dairymen's Association; C. L. Jones, President, Maine Live Stock Breeders' Association; E. A. Stanford, Expert, Bureau Farm Management, U. S. Dept. of Agriculture; C. S. Stetson, Master State Grange; R. W. Redman, State Dairy Instructor, and others.

ANNUAL MEETING OF MAINE LIVE STOCK BREEDERS' ASSOCIATION, NOVEMBER 15TH & 16TH, WATERVILLE, MAINE.

The Program in Part:
"Our Meeting," President C. L. Jones.

Report of Secretary, R. W. Redman.

"Work of the Maine Cattle Commission," F. S. Adams.

"Co-operative Breeders' Work," W. G. Hunton.

"The Work of the Maine Live Stock Breeders' Association," Leon S. Merrill, Director of Extension Work, U. of M.

Reports of Breeders:

Ayrshire, Dr. John A. Ness, Auburn.

Guernsey, George W. Walker, E. Wilton.

Holstein-Friesian, C. A. Bonney, East Sumner.

Jersey, Dr. B. A. Bailey, Wiscasset. Hereford, D. H. Tingley, Readfield. Shorthorn, C. H. Chapman, East Corinth.

Heavy Horses:

Clydesdale, R. R. Cameron, Caribou.

Sheep:

Leicester, E. E. Gifford, Canaan. Hampshire Down, F. D. Hilton, Anson.

Dickinson Merino, T. G. Hilton, Anson.

Swine:

Berkshire, R. O. Jones, Winslow. White Chester, J. F. Upton, Winesburg.

Lecture, "Raising Draft Horses in Maine," George M. Rommel, Chief Division, of Animal Husbandry, U. S. Dept. of Agriculture, Washington, D. C.

Lecture, "Some of the Problems that Trouble Breeders," Prof. P. A. Campbell, Prof. of Animal Industry, U. of M.

Lecture, "Contagious Abortion," Dr. F. L. Russell, Prof. Vet. Science & Bacteriology, U. of M.

"Picture hooks as hangers for milk pails will be found a convenience. Hang the pail on a hook and attach the other end to a clothesline stretched in the yard. The pails will thus get a good airing."—Ex.

THE ROYAL BREEDING SALES.

Chance of Year to Get Exactly What Will Be Most Useful.

The best chance of the year to get cattle for breeding or feeding is at the American Royal Live Stock show, Kansas City, October 10-15. The purpose of this show is to disclose the animals which present the highest progress in breeding, since the leading breeders are represented, and the contests involve comparisons of such leading herds. It is important to every breeder, therefore, to find out, at the Royal, just what the ideal characteristics of beef cattle are—and it is equally important that he discover where he can get such animals to use in breeding.

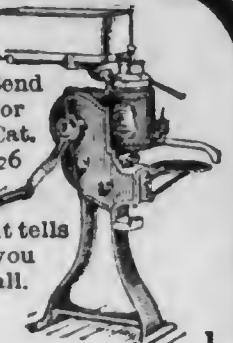
The sales of breeding cattle at the American Royal have been appreciated. Breeders know that the animals offered are carefully selected, since it is a matter of principle as well as of pride, for the association to arrange for the inspection and selection of the offerings. The secretaries of the Hereford, Shorthorn, Galloway and Aberdeen-Angus associations report that the committees have already inspected the animals offered for sale, and that the best lot Royal visitors ever had a chance to bid on will be seen. About 50 animals will be offered by breeders of each breed. Many of the bulls are fit to head the good herds of the country; many are young animals, with which new herds might well be started, and all are exactly the selection from which a person desiring to improve his herd can find the animal he needs. The secretaries of the associations, and prominent breeders, are available during the show to suggest to prospective purchasers the chief points of the breeds.

CORN MILK.

Now, if the corn is intended for the cows don't, for goodness sake, miser it all up for next winter's feeding, if she needs any of it now to help her out in a ripened, grazed-off or dried up pasture. Green corn sensibly fed is full of potential possibilities for the good cow; and if this good cow is going to do good work next winter, when dairy stuffs will be high, she must be prepared for it now. The best preparation is full, good feeding. Let her gain rather than lose flesh. Get her into training now for the job she will undertake then. Feed put into a good cow is not an expenditure, it is an investment. No fear of low butter and milk next winter—these excellent things must come from cows, and cow numbers are not keeping pace with cow demands. Cows are not being produced as fast as they are used. There is a bright day ahead for the keen dairyman who increases production and reduces cost. Feed the cow—but have her worth it.

Specially timely articles of the December Century will be "The House of Governors," anopos of its second meeting in Frankfort, Ky., by William George Jordan, originator of the idea and permanent secretary of the organization; and "Is Congressional Oratory a Lost Art?" by the Hon. Champ Clark, leader of the Democratic party in the House of Representatives, and probably its next Speaker.

Holds World's Record
The New 1910 Model
U. S. SEPARATOR
Is emphatically the BEST
and the only one for YOU to buy.



1. It skims the cleanest.
2. It's built the strongest.
3. It's the easiest cleaned.
4. It's the most convenient.
5. It requires least power.

The U. S. defeated all other separators at Seattle on these five essential points and

Won Grand Prize
Vermont Farm Machine Co.
Bellows Falls, Vt., U. S. A.

HAY COMMANDS GOOD PRICES.

Although the principal hay shipping states have not a large crop this year, especially Ind. and Ill., the deficiency will be partly made up in other sections. In N. Y. and N. E. the crop is about as large as last year, where new meadows were fully up to expectations. The average rate of yield is somewhere around 1½ tons to the acre.

Hay is conceded to be a rather short crop this year, and prices even now, early in the fall, are high. In Ill. farmers are receiving \$13@14 per ton for No. 1 timothy and 12@13 for mixed and clover. Michigan growers receive \$12 to \$14 for their best timothy. At Boston, prime timothy brings as high as \$22, No. 3 \$14 @ \$15. At Pittsburg, No. 1 hay sells at \$18.25. Baltimore pays \$20.50.

WHAT TO PLANT ON TEN-ACRE FARMS.

Reply to Mr. W. E. Hurlbut, Me.: In reply to your question as to what I would recommend for planting on a ten-acre fruit farm, I would suggest as follows: Fifty apple trees, occupying one acre; 150 peach trees, to be planted between the rows of apples and in each row of apple trees; 1210 currants, to occupy one acre, planted six feet apart each way; 1210 blackberry plants to cover an acre, planted six feet apart each way; 2725 black raspberries and the same amount of red raspberry plants, to cover an acre, each planted four feet apart each way.

Then plant 200 to 500 gooseberry plants, four feet apart each way; 435 grape vines, to cover an acre, ten feet apart each way. One acre planted to strawberries would require about 5000 plants. I would not plant more than one-fourth acre of strawberries the first year, as you can increase your planting of strawberries next year from the increase of your own plants. Plant fifty plum trees and fifty cherry trees, twenty feet apart, which will occupy about one acre of both cherry and plum. The fruits I have recommended will not occupy all of the ten acres. You will need an acre for pasture and a portion of the little farm for garden and farm crops. The man who has a ten-acre fruit farm, such as you have indicated, will, if he understands his business, be able to get more clear profit from this little farm than many farmers do at ordinary farming on 100 acres.—C. A. Green.

HOGS

HOGS AND CORN MORE NORMAL.

At the present time the farmer's best market for his corn is through the hog. This is the usual or normal condition which has generally prevailed. It is the condition that has built up the great hog industry throughout the corn belt of the United States.

For two or three years back there existed an abnormal condition in regard to the comparative market price of pork hogs and corn. Owing to the many different uses which corn is converted into, the demand for it, although the production continually increased, did not equal the requirement. The market price for corn advanced sharply while the price of hogs after the panic of 1907 made a radical drop. Corn could only be fed to hogs at a loss unless a large proportion of other feed, especially the grasses, clover, etc., could be introduced in growing and increasing the gain of the hog. These conditions brought about a desire upon every farmer to cut down his hog supply, and this in turn naturally brought about the scarcity of hogs, and the only result that could reasonably happen was a sharp and rapid advance in prices.

This year we have witnessed the reverse, the price of corn has gone down while the price of hogs has held up, making it a money making business to feed the corn to the hog.

It is better for the farm that this should be so, to a reasonable extent, because in looking to the future fertility of the soil, we cannot always be taking off and yet maintain productive conditions. If you raise grain and haul it from the farm to market, you are virtually selling your farm through the elevator. Therefore, it is the security for a continuation of the fertility and productive capacity of the farm that the corn should be fed on the farm. If any time the farmer finds it of best advantage to sell his grain, he should in some manner turn back to the farm equal values to that taken from the soil in producing the crop and thus maintain and improve the fertility of his soil.

Exclusive grain raising on the farm and marketing the grain is destructive of the producing capacity of the farm. While stock raising on the farm is just the reverse, being an improver and maintainer of the fertility and productive capacity of the farm.

In the past we have had a boundless supply in this country of rich virgin farm lands with wonderful original productiveness, but the time has come now when we must cease the abuse of the destructive method which has been going on for fifty years, and take up the system and plans of increasing the fertility and building up the values. It is being done where they have exhausted the soil, or nearly so, but how much easier it would be to stop before you get to the bottom of the hill and return it to its original productiveness by a proper system of farming.

The clovers, alfalfa, peas and beans being the leguminous plants

that are builders up of the soil by reason of attracting to the soil through the plants, nitrogen and necessary ingredients by nature's processes in improving and maintaining the fertility of the soil.

Every farmer should adopt the plan of stock raising. The grain farmer who is selling the grain from the farm must do this, or else return to the soil the equal of the ingredients taken from it, in producing his grain, or he will be on the downward road, impoverishing his soil and destroying its value.

TO GROW PIGS AT A PROFIT.

It is a well known fact that no animal can be checked in its growth, no matter what its age may be, without being physically weakened and stunted to a more or less extent, and no matter how well it may be fed and cared for afterwards it can never be made to attain the size which it naturally would have reached had its growth not been hindered; and even if it is so managed as to nearly come up to the standard, it will be at an increased cost over what it would have been had it been kept thrifty from the start. With all young stock, particularly hogs and cattle, the highest physical condition is essential to the most rapid growth.

An important part in getting a pig started right, and keeping it thrifty so as to make a profitable animal out of it is the grass supply. By having the sow in a movable house when she farrows the pigs can be given all the advantage in this respect. I believe that tender grass in the spring comes nearer the composition of the mother's milk than anything else that the farm can furnish the pig, and then when they are getting grass they get exercise, which is very important. Grass is the best product to produce a strong, bony muscular frame so as to bring them along in a well grown condition for corn in the fall. Yet grass must not be depended upon alone to build up and develop them. Grain and grain products are necessary, but the grass supply should be continuous throughout the summer. It sets the pig back if the supply of green food fails in midsummer. In early fall, when there is corn and other green stuff to take its place, it does not effect them so much. Clover is about the most reliable all-season pasture that can be had for pigs. The average farmer considers it the simplest thing in the world to feed pigs, and when you come to talk to this class about systematic feeding, they look at you in astonishment, but it's the main factor in raising swine, nevertheless. To be sure it is simple to feed pigs, but when you take into consideration the selection of food that suits the condition and know the importance of regularity it will be plain enough to see that only those skilled in the work need to look for best results. Hired men who can be trusted to do this work properly are few and far between; in fact, they are so scattering that the progressive breeder and feeder has long since given up hope of reaching

the highest point of profit unless he attends personally to the work. The feeder must make himself acquainted with the constituents of foods, with the relative quantities required for sustaining the animals at different ages, and for keeping up their growth. He must understand that certain food, however good in combination, when solely relied upon will prove insufficient to maintain a healthy and strong constitution.

Another, and a very important matter in successful swine growing, is good shelter, for while other animals on the farm may apparently be content to remain out in the cold and rain, the hog invariably selects a nice, warm, dry place. So for the good of the animal, do not go contrary to his nature and compel him to expose himself to the elements, but provide for him a comfortable, warm and dry bed.—V. M. C.

Some knowledge of hogs and their rearing is essential, but an inexperienced man with an open mind may accomplish much. He has many sources of information—his neighbors and other breeders who have had practical experience; the standard and current literature on swine; the work of the state and national agricultural departments and stations; the agricultural press; meetings of breeders; farmers' institutes; and others.

No one knows everything about swine husbandry, but anyone with a desire for knowledge can find abundant opportunity to learn. An excellent principle worth recalling in this connection is that wrong practices once acquired are difficult to overcome, just as wrong traits bred into a herd require a long time for eradication. Slow, but sure, is a good motto for the swine-breeder.—From Coburn's "SWINE IN AMERICA."

In the corn belt most farmers find their abundant and inexpensive corn a feed which cannot be avoided or ignored, nor should it be; but while its use need not by any means be omitted, it should be but moderate, and as a part of a reasonably balanced ration. Sows kept for breeding should not herd with fattening hogs kept on corn, but be in pasture and given a supply of slop, such as equal parts of shorts, corn meal and wheat bran. Feeds which furnish considerable bulk are preferable, and those tending to prevent constipation are important.—From Coburn's "SWINE IN AMERICA."

No, one doesn't have to be a college professor, not of an agricultural or any other sort of college, to be a good farmer; and for all around farming the practical farmer would likely beat the professor.

Yet that is the reason why the practical farmer should learn from the other fellow. He is a specialist, an experimenter, a developer of new ideas, and these adopted by the practical man can be turned into dollars. He makes practical what the other man originates. He cashes in on the other's experience and experiments.

DO BREEDERS HAVE CULLS?

A farmer contemplating entering the business of breeding and selling swine for breeding purposes, asks if breeders have culls, and what per cent. of them average good enough to be shipped out as breeders.

This is not an easy question to answer. In breeding one of the well defined rules is that, "Like produces like," but as no animal is quite perfect, therefore breeders are trying not only to maintain but improve the quality of the produce from their herd. It requires a skill that comes from experience, and even the best breeders cannot tell beforehand whether the two they are mating will nick to best advantage.

There are some general rules, but there are other undiscovered natural laws no doubt, as it has been found that where two animals nicked exceptionally well, in breeding them together, is followed time after time, showing that there must be some rule which is unknown to the breeders, for it has proved itself by its continual recurrence, so that when it is once found that you have two that mate and nick in this exceptional manner, do not waste any time experimenting with others than these two animals, as they are proved. Yet some breeders have done just this foolish thing and lost out on it. Again, it is found that two animals fall utterly to nick and the production from them are inferior to either the sire or dam, showing that the rules governing the mating and breeding for excellence are not followed in this instance and the quicker the animals are changed the better.

Now, some breeders are more skillful than others, and have fewer inferior animals, and then again other breeders cull exceptionally close and

put on the pork market everything that is not up to their standard. This class of breeders build up a trade because their customers find they can depend on getting good animals always, and are never imposed upon by having a cull shipped them.

Then again there are runts, now and then in a litter, where there may be six or seven good ones and a couple of inferior ones. The cause of this is not easy to determine, since it is the same mating that produced six or seven splendid animals that brought forth the two inferior ones, it is from some cause not known.

Then some breeders are so much better feeders than others that they make a pig that when started with seemed inferior to the balance of the litter; but by good feeding and careful handling he grows to be the equal of the best.

By the way, no man can become a first-class breeder unless he is a good feeder. Feed is an important matter in the improvement of the hog. You can take a splendid animal or an excellent herd, put them into the hands of a poor feeder and they will deteriorate, go back year by year until they become an inferior herd. In proof of the point that runts by good feeding are sometimes made an excellent animal, F. M. Lail called a pig that he had "a pot bellied runt," that afterwards was named Corrector and the winner of the highest honors at State Fairs, and became a noted animal.

Our young breeder cannot expect to jump into the place that the most experienced and capable breeders have won through years of study, practice and experience; but fortunately he can get his at less cost, in quicker time than the other by taking advantage of the knowledge and experience of his brother breeder, who has acquired them by years of work. A point that is established does not require the young breeder to go back and do this over, but start from this point. We would advise him to begin with a few good animals and carefully build up the herd, add to it, as he needs extra ones each year, always putting in good ones. In working in this way it will be found of advantage and benefit, and by closely culling, selling for breeders only those that are the choice ones, he will build up in time a reputation as a breeder that will make him a successful one.

Follow the successful methods, keep posted on what others are doing and have done, and you will be more likely to make your business a success.

DON'T STARVE PIGS.

You cannot grow a pig on wind. It is not natural to make something out of nothing. There are natural elements that are necessary in the construction of the pig. When you have a properly balanced ration, and keep the machine in just the proper running order for changing that ration into the form of the pig, the more the pig can eat and properly digest and assimilate, the greater the growth. The improvement of the pig must be done by good feeding as well as proper mating. Every successful breeder is a proficient and competent feeder.

Some breeders have an idea that all that is necessary for them to be

a breeder is to buy a good pig or a good herd and then everything is done. This is a wrong theory that is quickly disproved. The good breeder never stops working, thinking, watching, testing and improving on his present methods, and from these intelligent, persistent applications comes success.

There are 4,706 breeders and owners of pure bred live stock in New York State, and they own 65,962 animals.

HOGE.

FOR SALE—Thoroughbred Durocs Poland Chinas and large Yorkshire Swine, Rhode Island Red Chickens and eggs. WM. HARSHMAN, Thurmont, Md.

BARGAINS IN POLAND - CHINAS, BERKSHIRES and CHESTER WHITES I now have a large stock of probably the best I ever owned. Cannot tell you all here, but I have Boars and Sows, all breeds, 2 to 6 months old mated not skin; sows bred and boars ready for service. Guernsey Calves and Registered Scotch Collie Puppies. Write for prices and free circular. This stock must go and will be sold. M. B. Turkeys, Barred and White P. Rocks, B. Leghorns and Beagle Dogs. P. F. HAMILTON, Cechranville, Pa.

FOR SALE—Some fine Yorkshire Pigs—no better stock in U. S. Just imported—new blood. A. A. BRADLEY, Frewsburg, N. Y.

MILCH GOATS.

MILCH GOATS—Information regarding this most profitable milk producing animal. Write G. H. Wickersham, 1242 St. Francis avenue, Wichita, Kansas.

POULTRY.

FOR SALE—Good honest stock eggs of Single Comb Brown Leghorns; first strains, Cups and Blue Ribbon winners at Cumberland, Frostburg and Somerset. 600 fine large farm-raised birds for sale at reasonable prices. Twenty-five extra choice Light Brahma cockerels for sale. Write me. HERMAN STUCKEY, Sand Patch, Pa.

MISCELLANEOUS.

HORSES going blind Harry Co., Iowa City, Ia., can cure.

AUTOMOBILISTS ATTENTION—Fur-lined coat never worn, lined throughout with the best Australian mink, elegant Persian lamb collar, cost \$175, will sell for \$35, also pair of cinnamon bear robes \$80 cost \$120. Write W. SCOTT,

121 East 27th St., New York.

TROTTER MARE for sale—a handsome, black, trotting mare, and beautiful stud colt, very fast. Second cousin to Dan Patch. Price \$200. P. J. WYAND, Cumberland, Md.

FOR SALE—Two litters Scotch Collie puppies, sired by the noted "Flying Comet" and "Liddle Boy," out of bitches bred in the purple; perfectly marked golden sable; strong, healthy, farm-raised stock. Prices from \$10 up. FRANK H. TAYLOR, Reedsville, Pa.

SEND 10c for a sample copy of the largest, newest, race-horse paper published. P. J. WYAND, Cumberland, Md.

FOR SALE—Pure bred Registered Holstein bull calf. Mostly white. Fine individual. Good pedigree. Write for pedigree, photograph and price. MADISON COOPER, 101 Court, Watertown, N. Y.

Headquarters for Breeders in N. Y.



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Excellent Food Good Service

OUR FEATHERED FRIENDS

Conducted by George W. Miller.

WANTED TURKEYS.

Time was in old New England when every farm reared its flock of turkeys. Fifty years ago the sight of a gobbler in every farm yard was a familiar sight. Every farmer had a pride in his flock of turkeys and every Thanksgiving saw good returns for the season's crop. But today, how different!

There is only one state—Vermont—where turkeys thrive, and no matter how much or how hard her sister states try to rear turkeys, their efforts fail. The problem remains unsolved why the turkeys die.

Some attribute it to the lack of charcoal, while others say it is an affection of the liver similar to tuberculosis. No one has yet devised a remedy or a cure. Every year finds hundreds of people trying to rear turkeys in the forbidden states, but only a few succeed. Some send half-way across the continent for stock or eggs so as to be sure that there is no disease present, but these people just as often fail.

The price of turkeys soars higher each year, and Western and Vermont turkeys are eaten at the table of the farmer whose father and grandfather would scorn such a thing, and who reared their own turkeys themselves.

Here is an opportunity for someone to breed a race of turkeys that will withstand New England conditions; that will stand the soil, the climate, the food upon the farms in the states where now they cannot live. All things are possible. It is possible to originate a strain of turkeys that will live under the present conditions of the farms in this section.

What is Thanksgiving without a turkey? But last Thanksgiving how many had to go without them? Not only were turkeys scarce, but the price was so high that it was prohibitory to many people. Turkeys brought 40 cents a pound in Boston, and a great many turkeys on the market are taken from cold storage, and no one knows how long they have been kept, or how palatable they will be.

Surely there is a splendid chance for some one to get busy and rectify this great wrong, to blot out this evil—to rehabilitate this race of fowls upon the farms of New England. There is a fortune in it for some. Who will be first to demand the prize?

WEIGHTS OF POULTRY FEEDS.

One quart of middlings, 1 pound; one quart shorts, 1 pound; one quart bran, three-fourths of a pound; one quart alfalfa meal, three-fourths of a pound; one quart rolled barley, 1 1/4 pounds; one quart wheat, 2 pounds; one quart corn, 2 pounds; one quart beef scraps, 1 1/4 pounds; one quart beef or blood meal, 1 1/4 pounds; one quart oyster shell, crushed, 3 pounds; one quart millet seed, 1 1/2 pounds; one quart unshelled oats, 1 pound; one quart limestone grit, 3 pounds; one quart charcoal, crushed, three-fourths of a pound; one quart Kaffir corn, 1 1/4 pounds.

VALUE OF FREE RANGE FOR GROWING STOCK.

Although numerous methods of keeping large numbers of fowls or chickens on a small area of ground are in existence, the fact remains that good chickens—that is, those with good, large frames, plenty of muscle and good, red blood—can be grown only when they have a chance to run in the fields, supplementing the feed their owners give them by vegetable and animal matter, like seeds, roots, bugs, worms, etc., until their entire ration is something like Nature intended it should be. It is true also, that chicks reared after this fashion are the kind that will make the best use of their food and turn the most of it into eggs next winter when the price is high. Therefore, the farmer is wise who puts his coops of growing chicks out in the orchard, meadow or cornfield, and lets them go where they will from daylight until dark. The coops for this purpose should have slat or wire fronts with burlap curtains to let down when necessary to keep out driving rains. No more should be put in each coop than can find plenty of room on the low roosts.

GOOD BUG CATCHERS.

A Maine farmer who has been bothered by grasshoppers in past years, this year raised fifty-seven ducks, permitted them to roam about his place, and hasn't seen a single grasshopper that wasn't on its way down some duck's throat. He says that the ducks have paid for all they cost him, and he has already marketed half a dozen at a good price, which he considers clear profit.

BLOODED STOCK for October.

Put away a lot of second-class cabbage to feed the fowls during the winter when other green food cannot be had.

If the hen house has a dirt floor, be sure that it is high above the surface of the ground outside so that it will be dry during the winter.

Let the turkeys roost outdoors, and if they get into the hen house, drive them out. If allowed to roost under cover, they will become liable to colds.

Give the boy a hen house and a flock of fowls. He will soon take an interest in caring for them well enough to make it profitable, and will enjoy earning his own spending money.

The ducks should not be fed any meat feed during the fall or they will begin to lay; and if they begin to lay too early they will not produce eggs next spring when the hatching season opens.

Don't keep the growing chicks confined in yards if it is possible to give them free range, for the chicks require room if you want them to grow muscle and frame and build up a constitution that will make them profitable this fall.

It will not hurt any kind of chickens, turkeys, ducks or geese to sleep outdoors during September. The pure air will give them good, red blood, which will keep them warm during the long, cold months, when they will be shut in the houses.

If the coops are not well ventilated, the growing chicks will be too warm during the night, and will sweat out more strength during the hours in which they ought to rest than they will gain under the most favorable conditions during the day.

THESE SICKLY-LOOKING CHICKS NOT FED OUR WAY

They wouldn't be wilted, forlorn and droopy as are these poor little fellows. What's the matter? Likely some one has been feeding a lot of table scraps, or sour bread, or some other indigestible mixture that is fermenting in their stomachs. Tomorrow the owner will find eight or ten dead, and wonder: "What killed my chicks?" Chicks are babies and must have baby food. That's why Puritan Chick Food is so successful in rearing chicks, keeping them well and holding down the death-rate. It just "fits" the interior mechanism of the digestive organs of a chick.

Puritan Chick Food (The Safe Kind)

has a delightful taste and odor to a little chick, because it is compounded of those very pure, wholesome and sweet elements that naturally attract it. Your little "put-balls" will make things by scratching; they are always happy and busy, when fed on it. Some of the largest poultry plants use Puritan Chick Food. It pays them. It will pay you, no matter how small your flock. It is foresight, wisdom, economy and profit, for you always to keep it on hand. It's true life insurance for your chicks, all other things being equal. We guarantee it so, and refund money if you're not satisfied. No fussing about it, either—your word is final. Puritan Chick Food is put up in 5-lb. boxes for 25c; 25-lb. bags \$1.00; 50-lb. bags, \$1.75; 100-lb. bags, \$3.25. Ask your dealer for it. If he hasn't it we'll supply you. Booklet free. Write now for it.

Puritan-American Poultry Food Mfg. Co.,
Bound Brook New Jersey



BLOODED STOCK for October.

FACTS ABOUT GUINEA HENS.

Guinea Hens are a first cousin to the game bird, and are not as plentiful as they should be, taking into consideration their profit as egg producers, their flesh for table use and their great ability to hustle and forage for their own living. They are in reality as profitable, if not more profitable than any other fowl in the poultry yard. The cause of so few being raised by the average farmer is on account of them being so noisy and their tendency to roam, but in spite of their wandering disposition they have a home loving instinct that always brings them back to their home quarters. The guinea fowl requires more freedom than the other breeds of fowls, and it is next to impossible to keep them in small lots or yards and make a success at raising them, as their health requires them to ramble over the fields, orchards and wood-lots. If there is an orchard or stretch of woods connected with the home grounds or poultry yards the guinea will do well in them. They are less trouble and cost less to keep than do chickens or turkeys, and if allowed to follow their own inclinations will produce a large number of eggs each year and will do well in breeding and brooding their young.

When first putting down a breeding stock of guinea fowls it is necessary to be careful that there has been no inbreeding in the strain secured, for should there be fowls that have been inbred in the flock the young will prove to be very delicate and there will be difficulty in raising them. And even should you succeed in raising them they will be small in size, not gathering or maintaining flesh as they should to fit them for table or market purposes. Neither is it advisable to try to raise a stock from eggs hatched in incubators or under chicken hens, as the guinea chicks will not be likely to do well, and one-half or two-thirds of them will die before they reach one week of age. The better plan is to let the guinea hen make her own nest, hatch her own brood and raise them accordingly as nature has taught her. Many who have undertaken to raise guinea fowls by the incubating process have met with complete failure, even though the greatest possible pains were taken to raise the fowls. Unless the guineas can be treated in a semi-wild manner general success in rearing them is not assured.

The guinea hens will lay a considerable number of eggs before they become broody, and should one hen discover the nest of another where she is laying for brooding purposes, it is likely that she will begin laying in the same nest and continue to do so as long as she can.

Guineas usually mate off in pairs, the same as do quails or pheasants. However, where there are more females than males, one will quite often find an unmated hen attach herself to a mated pair and two hens lay in the same nest, and it has been known, but is very seldom the case, of two hens incubating in the same nest. Some times several hens will select a spot for laying as if they were going to nest, but really with no intention of brooding there. When they are really going to brood the guinea hen will often desert the place where she has been laying and

hunt some secret spot for her brooding nest, where she can hide from the rest of the fowls, and it is sometimes very troublesome to find her; here she will lay from twelve to twenty eggs and hatch them off. All the while the male bird struts around and never goes near the nest when there is any one around, as much as to say, "find her if you can." Should you discover the hen bird when she leaves the nest for food or water, it is then almost impossible to trace her to her nest, she will lead you a wild goose chase in all directions except the right one, entailing also possibly the cooling of the eggs and consequently loss of brood. The best plan is to allow the hen her own free will in nesting and caring for her brood; nature has had much to do with teaching her the lesson of properly caring for and raising her family.

Under the described conditions young guinea chicks will almost raise themselves and forage from the time they leave the nest, they will potter about all day finding all the grass seed and insect food they require, and not until they are of a respectable size will they require any grain food. They are of quicker growth and develop more speedily than any other kind of fowl, and learn to get up into a tree to roost at an age quite out of the question with chickens. The male bird is of much help to his mate, assisting the young to forage and protecting them from their enemies. During the summer both young and old need very little feeding, but as the young birds increase in size, some grain should be given them; the best feed is barley and maize given in a dry state. Guinea fowls prefer roosting in trees, and it is advisable to allow them to do so, except in the severest weather, when it is good policy to house them.

It costs no more to keep a pure-bred, productive hen than it does to keep a mongrel growing.

New breeds of poultry admitted to the Standard at the last meeting of the American poultry association were Columbian Plymouth Rocks. Admission was denied to Aseels, Barred Minorcas, Rose Comb Barred Plymouth Rocks and pit games.

Daniel Ross of Truro, N. S., has some Brown Leghorn chickens that produced their first eggs at the age of three months and ten days.

In Geneva, Ohio, a rooster was arrested by order of a doctor because its crowing bothered a man suffering from typhoid fever.

The Oklahoma Agricultural Experiment station some years ago made feed trials that are worth calling attention to. They found that poultry digested Kaffir corn and corn more completely when the grain was fed whole than when the meal was fed. The Kaffir meal fed yielded but two per cent. less total digestible matter than the corresponding corn products. Kaffir corn was a more suitable ration, considering only the relative amounts of growth-making and fat-forming materials than Kaffir meal, corn or corn meal. Cowpeas were digested reasonably well, and are desirable feed for poultry.

Belle Brand Crushed Oyster Shells

Make Poultry PAY!

Tests show where these shells have been used—duration of test 22 days—number of eggs, 33; weight of eggs, 1489.6 grammes. Where Sharp Grits were fed—test 22 days—number of eggs, 6; weight of eggs, 257.6 grammes. This is convincing argument why every poultry house or yard should have them. They'll make hens lay an egg a day, with firm, hard shell—less liable to break in shipment.

Belle Brand Crushed Oyster Shells supply Carbonate of Lime in natural form and acts as a grit, making them superior to any other poultry food on the market. Write for Free Catalogue to LOUIS GREBB, BALTIMORE, MD.

An unusual coincidence is reported by John F. Spratt of New Hampshire. On May 13 he set two hens on 13 eggs each. They hatched and raised 13 pullets and 13 cockerels.

An important and interesting feature of Arthur Stanley Riggs' presentation of "The Commerce of Spain," in the December Century, will be a concise table showing Spanish imports into foreign countries, 1896-1908, and American competition. The article presents, further, recent and authoritative facts and figures concerning the growth of Spanish commerce, and its opportunities for Americans. This will be the first of The Century's series on "The Trade of the World."

Cover the openings to the poultry house with inch-mesh wire netting, which will keep out the sparrows. They will go through 2-inch meshes.

Old hens better be sold off now or later. You don't know whether they will get through the winter alive or not. If they do, they surely will not give you eggs enough to pay for their living.

\$350 a Month--500 Hens



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Edgar Briggs did it! BRIGGS, the Thomas A. Edison of the Poultry World—the man who wrote "Profits in Poultry Keeping Solved"—fourth edition just now ready. No branch of mercantile business or farming pays the profit that poultry guarantees under the Briggs system.

Briggs' "Poultry Silo" discovery alone is now saving farmers and poultrymen thousands of dollars daily. He feeds his hens "poultry ensilage"—a processed feed that makes them lay regularly, even in winter, when egg prices are "out of sight." Briggs tells how to make the ensilage at not to exceed 15c per bushel. Briggs' Book contains literally hundreds of secrets, making poultry raising for every one a profitable business or side line.

FEAST OF FACTS, \$1.00—For a short time only we offer Briggs' Book "Profits in Poultry Keeping Solved"—100 pages, fully illustrated and nicely bound, including "Secrets in Poultry Culture"—the many secrets used by Briggs, and one year's subscription to "Poultry Success," the leading monthly poultry journal. If you have never read it, borrow a copy from your neighbors, or write for samples. ALL THE ABOVE ONLY \$1. Write to-day.

FRUITS AND VEGETABLES

THE ODOROUS ONION.

The despised but delicious onion may not be an aristocrat among vegetables, but it certainly is entitled to rank among the great wealth producers of the agricultural world. The onion crop is among the most profitable of all the produce of American farms, experience having demonstrated that onions under proper conditions will yield a net profit of \$450 per acre. Thus a farm which would produce a net profit of \$30 an acre in wheat would yield fifteen times as much if planted in onions. A hundred-acre field of the very land under the very conditions would yield a profit of \$3000 from cereals. In onions it would yield \$45,000. But fortunately for the onion market the land particularly adapted to onion culture is limited in extent.

The census now being taken for the United States probably will show a yield of 15,000,000 bushels of onions. In the census of 1900 New York produced more than any other state in the union. So concentrated was the onion growing industry that one-half of the entire onion yield was produced by twenty-five out of more than 3000 counties in the United States. Texas is now becoming one of the most prominent producers of onions among the states. In fact, the onion has proved to be something of an empire builder there. In the Brownsville region, where only a decade ago the rural districts were almost unpeopled, today there is a population of fully 100,000, and they are making the land flow with the milk and honey of wealth derived mainly from the growing of the mild flavored bermuda onion.

T. C. Nye of Laredo, is known as the onion king of the Rio Grande. His farm yields at least 20,000 pounds of onions per acre. The entire yield of that small district, comprising 1200 acres, is said to approximate 24,000,000 pounds. The crop is sold at such prices as to yield a net profit of \$480,000, or \$400 per acre. Mr. Nye for years has set aside five acres for the growing of bermuda onions, and has kept a careful record of all his financial transactions growing out of his onions on these five acres. This account shows that with good, bad and indifferent seasons his land has netted him a profit of \$1360 in four years.

The island of Bermuda is now the world's most concentrated onion-growing region. Its prosperity and its financial depressions are determined by the status of its onion crop. Bermuda's other crop is the Easter lily, out of which it makes a profit of hundreds of thousands of dollars every year. Strange as it may seem, these two industries are very closely allied. The Easter lily being a cousin german to the onion. They both belong to the allium family, of which there are some 250 different branches.

It is said that the onion is probably the first vegetable ever cultivated by man. As far back as civilization goes its literature reveals the cultivated status of the onion. Holy writ itself tells us that the children of

Israel in their sorrowful wanderings through the desert remembered the fish we did eat freely, and cucumber and the melons and the leeks and the onions and the garlic, and longed for them again. To this day the onion of Egypt is still known by the name by which Israel called it—Batzel. The oldest of the Chinese records show that the onion was a cultivated plant, and the botanists have traced it back to the tablelands of the Hindu-Kush mountains, the very cradle of the human race.

In the cultivation of the onion for generations it has been the custom to grow them directly from the seed. But in recent years a new order of onion culture has sprung up. By this method the seeds are started in hot houses or cold frames, and when they have reached a sufficient growth they are transplanted into the onion beds. To transplant a few hundred bulbs is not a formidable task, but when one goes to set 120,000 bulbs on an acre he has a job on hand. It exceeds all the remainder of the labor of onion growing and selling put together. A good boy can set out 3000 plants a day, while a nimble-fingered person, accustomed to garden work, will easily set out 5000. It requires about twenty-five days' work to set out an acre in onions by the transplanting method.

The experimenting stations of the various states have demonstrated the advantage of transplanting onions. In one case the transplanted bulbs yielded 548 bushels to the acre, while those not transplanted yielded only 216 bushels to the acre. At the Tennessee experiment station transplanted onions yielded 823 bushels to the acre, as compared with 206 bushels where they were not transplanted. In the experiment of the North Dakota station the transplanted onions yielded four times as much to the acre as the direct seedlings.

One would expect the onion to be singularly free from the ravages of insect life. But such is not the case. Tiny onion thrip is very fond of the pungent juice of the growing top, to which its bite is fatal. Various kinds of cutworms are also destructive to the onion. There are a number of fungus diseases that attack the onion, and some of them work great harm in extensive onion fields.

In many cases the onion is grown more for seed than for the onion

itself. In California there are many extensive fields devoted to the growing of the seed. When this seed is sufficiently ripe Chinese laborers go through the fields and gather the heads into large bags. The seed is carried to some central point where it is spread out to dry. It is afterward threshed through an onion threshing machine and the seed is washed and dried again. It is necessary that the land on which onion seed is grown shall be exceedingly fertile and free from all noxious weeds. The onion grower using the new method has felt seriously the need of an onion transplanter. Many efforts have been made to solve the problem of transplanting but without success. However, in the matter of harvesting a successful header has been found.

The harvest comes when the tops are all wilted to the ground. Dry weather is very desirable as long as the pulled onions are left on the ground to cure. When they have been allowed to remain in the sun for a week they are gathered into a large storage house much like the familiar corn crib. They possess a great advantage over apples and many other fruits which must be marketed shortly after maturity. By proper methods the farmer may keep his onions until he considers the market high enough to warrant their sale.

A well known writer on onion subjects says that he has frequently grown more than a thousand bushels to the acre. To do this it has cost him \$300 an acre. A thousand bushels at 75c per bushel brings him in \$750, thus leaving a net profit of \$450. He thinks that in well irrigated land a 1500 bushel crop is possible.

Massachusetts has long held the record for acre production of onions. While not as well favored with natural soil fertility as many other states, its onion growers have produced an average crop twice as large per acre as have those of many much more fertile states. This lesson of careful intensive cultivation is also borne out in other crops, and shows the possibility of the future when farming becomes a profession.

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Save \$30

SOIL MULCHES.

A mulch is anything applied to the surface of the soil, primarily for the purpose of preventing evaporation, and occasionally to keep down weeds and prevent winter killing of plants.

There are two general kinds of mulches: (1) Foreign material, such as straw, leaves, sawdust, manure, stubble and sand applied to the surface; (2) Those composed of natural soil modified by tillage. One of this kind is called "dust mulch" or "dust blanket" and is simply a layer of soil which has been loosened up and dried out.

Mulches or foreign material play a very small part in general farming, but are extensively used in horticulture in some localities.

The principle of the mulch is as follows: Loose, dry material covering wet soil retards the movement of water to the surface, and keeps the dry, circulating air from contact with the moist soil, thereby greatly reducing the loss of water.

The finer the mulch the looser it must be to give good results. Ordinary soil mulches two to three inches deep are unusually most effective. When a mulch becomes wet its effectiveness is gone until it is dried out again.

Light rains and irrigations on a mulched soil are worse than no application of water, because they only wet and destroy the mulch and allow the water from below to escape, without adding any to replace it. Additional expense is incurred by the cultivation which must be immediately started to restore the mulch.

A quantity of water retained by cultivation is of far greater value even where water is plentiful than the same amount applied to the soil. One of the great principles of dry farming is to keep a good mulch on the soil all the time to prevent loss of water by evaporation.

D. W. FREAR,
Colorado Agricultural College, Fort Collins.

FROSTED AND SOFT CORN.

Untimely severe frosts sometimes damage the corn crop so that its marketable value is considerably lowered, but in this event, as in other cases, the hog comes to the rescue. Soft corn is considered excellent for swine, and especially for the young; in fact, many breeders believe they can obtain better gains from soft corn than from the sound, hard grain. In soft corn the maturing of the grain has been checked, thereby arresting the development of the starch content or fat-producing element. When used it is advisable to add, for finishing, some corn that is well matured. Immature corn that is frozen, and even somewhat soured, may be fed to hogs, but if there is on hand a greater quantity in that condition than can be used on the farm before warm weather sets in, it should be disposed of while the weather is cold. Ordinarily it may be used in cold weather without danger, but it should not be carried over into the warm season, as it will ferment, and become unfit for use.—From Coburn's "SWINE IN AMERICA."

CARING FOR FROSTED POTATOES

The third week is the time to care for potatoes that have been touched with frost in the ground. The first ten days after the storing, the frozen ones cannot be detected nor sorted out. After the third week they are likely to be semi-liquid rots and to smear up the mass past remedy.

Good light is required, and cannot be counted upon from open doors or windows at the right time, because of the likelihood of storm and cold. Mr. F. E. Sweet, at Carbondale, Colo., has gasoline mantle lights in his cellar. Acetylene or electric light is sometimes available. Some cellars in the Greeley district, including the new one at the Colorado Agricultural College, have facilities for skylights in cold weather. Daylight is the best and none too good for the work of sorting out the rots. Frosted potatoes, like balky horses, are bad property. Never buy them. We all have enough of our own.

The man who stores frosted potatoes and does not sort them, seldom deserves any sympathy, although his neighbors pity him. The third week is the time to sort frosted potatoes.

C. L. FITCH,
Colorado Agricultural College, Fort Collins.

FALL-SET STRAWBERRIES.

Should strawberries be set in the fall? At one time fall setting was recommended in preference to spring, but it is not now often advised. There is too much risk of injury from dry weather in the fall, winter killing and the various ills to which strawberries are liable. Fall-set plants will bear a small crop the following summer, which is a little in their favor, but the next year they should not be expected to give as good an account of themselves as if set in the spring. However, when no provision has been made for a crop next year it may be advisable to set a bed this fall. If the ground is in good condition and the plants vigorous good results may be obtained.

The bed should of course be protected this winter and too much should not be demanded next year. It would be better to cut off some of the blossoms and runners than to weaken the bed by the overbearing of fruit and plants the first season.—Farmers' Review.

Six billion board feet of lumber, valued at about \$15,000,000, were destroyed in the recent forest fires in the national forests in Montana and northern Idaho.

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An instructive booklet fully describing this country will be sent free.

J. W. WHITE, Gen'l Industrial Agt.
Dep't. S. A. L. Ry.
NORFOLK, VA.

FRUIT BEARING PERIODS.

Somebody has estimated from statistics that fruit trees and bushes will bear for the following periods: Apples—Twenty-five to forty years. Blackberry—Six to fourteen years. Currant—Twenty years. Gooseberry—Eight to twelve years. Pear—Fifty to seventy-five years. Plum—Twenty to twenty-five years. Raspberry—Six to fourteen years.

SELL THE SURPLUS.

It is a demoralizing thing to own too much land. I don't believe I ever saw a man who owned much more land than he needed for use all the time who was a good farmer. Loading acres on a farm are a pretty good sign of an owner that loads more or less, too. The man with a whole lot of land, a farm bigger than he can work, is seldom, if ever, a successful farmer. The "loading" of the acres seems contagious. The owner feeling that it is impossible to keep all land up to its highest condition of productivity, gets discouraged, and does not try to have any of it in that condition; and that surely is a sign of mighty poor farming.

KENDALL'S SPAIN CURE

Never failing cure for Spavin, Curbs, Splints, Ringbones, all lamenesses. Also a great family liniment. \$1 a Bottle, 50c for 25c. Ask druggists. Treatise on the Horse's Feet at drug stores or address Dr. E. J. KENDALL COMPANY, Eastburg Falls, Vt.

CLARK'S DOUBLE ACTION "CUTAWAY" HARROW

WITH JOINTED POLE. It is made especially for every day work. It will increase your crops 25 to 50 per cent. This machine will cut from 25 to 30 acres, or will double-cut 15 acres in a day. It is drawn by two medium horses. It will move 15,000 tons of earth one foot in a day, and can be set to move the earth but little, or at so great an angle as to move all the earth one foot. Runs true in line of draft and keeps the surface true. All other disk harrows have to run in half lap. The Jointed Pole Takes All the Weight Off the Horses' Necks, and keeps their heels away from the disks. We make 120 sizes and styles of Disk Harrows. Every machine fully warranted.

Send for FREE Booklet with full particulars.

CUTAWAY HARROW COMPANY,
Main St., HIGGANSUM, CONN.

HOME BEAUTIFUL

Conducted by Georgie Middleton Fisher

THE WOMAN BORE.

If a woman wishes to be popular, and remain popular, with her friends and relations, it is absolutely necessary that she should avoid earning the reputation of a bore. People not only detest, but also take care to avoid, the woman whose conversation and manners irritate them in any way, and who has not the tact and common sense to perceive and limit it accordingly.

The man who bores is a sore trial; but the woman who possesses such a characteristic is a positive affliction. Doubtless there are few readers who have not met such a woman. She will recite for hours at a stretch the troubles—real and imaginary—which she experiences with her husband, children and servants. She will expound upon her own ailments, and bore you with a recital of pains and aches, sufficient to fill a hospital ward.

She also usually complains of being a bundle of nerves, and yet takes a keen delight in telling you the most sensational and harrowing news which she has read, until she makes your flesh creep. And if you plead an engagement in order to escape her, she not only offers, but actually insists, in a manner not to be denied, on accompanying you until she has exhausted her fountain of talk.

The grievances which such a woman has to tell you are inexhaustible. No one ever understands her, for the simple reason that she can never understand herself. Every one abuses her. No matter how earnestly she may work for the good of others, she is always sure that no one appreciates her efforts. The truth of the matter is that she really does nothing at all without largely advertising the fact, and no one can appreciate self-praise.

She talks of the failings of her husband, children and servants, totally ignoring her own faults, which, however, are very apparent to her friends. She is not with you five minutes before she begins telling you of the hours which her husband spends at the club, neglecting her night after night. No wonder, you remark inwardly, the poor man tries to escape the affliction as much as possible if his wife bores him as much as she bores you.

The first chapters of the Rev. Dr. Arthur C. McGiffert's Life of Martin Luther will appear in the Christmas Century; and, it is said, they make Luther, boy and youth, a very human and very real person. Dr. McGiffert has aimed to give readers of to-day an interesting and logical presentation of the effect upon modern religious life and thought of Luther's personality and work.

LADIES WANTED—TO PURCHASE their groceries, soaps, etc., by our Factory-to-Family plan. We give you full value for your money and in addition the same value in premiums. We are also making a SPECIAL OFFER of FIVE EXTRA CERTIFICATES to secretaries of Club-of-ten. Write for free catalogue, Pap-Worth Premium Co., 512 St. Marks Ave., Syracuse, N. Y.

ON THE NATURE OF BOYS.

Demoralizing Effects of Withholding the Rod.

I agree that boys nowadays are bad. There are too many hangers on corners, too many gentlemen loafers, sons of parents in well-to-do or comfortable circumstances, too many boys who are impudent, saucy, and ignorant as well, who are developing wrongly for lack of discipline and correction.

I do not object to corporal punishment, and I regret that it has been discontinued in the public schools of our city. Several school teachers have told me that the boys in public schools need punishment when bad, and the knowledge that they need not fear the rattan or the whip, encourages them in bad manners and misbehavior.

The boys frequently taunt their teachers with such remarks: "You can't lick me; my father will have you bounced if you touch me," &c., with variations. This is common knowledge among school teachers, especially in Manhattan and Brooklyn boroughs.

Boys are but young animals and need training. The fear of punishment is an admirable weapon for the trainer to have at hand. To-day there is no fear of punishment in the minds of our youth. I think a great deal of their bad behavior in the cars, on the streets, in the home, in business life and at play can be traced to that mistaken idea of kindness called "moral suasion."

Boys need punishment and discipline. They don't get it, hence a lot of ill-bred young ruffians in our street cars and public places; an inefficient lot of youths and young men in our shops, offices and factories; a lot of corner loafers ranging in age from 12 to 20 years who are supported by parents or guardians in idleness and who spend their time in wickedness.

Just visit a court room or two, as I do frequently, and see the crop of youthful depravity brought to the bar—sons of well-to-do parents, arrested for thievery, burglary, &c., and then hear how they started in crime and villainy from their own lips, and you will join me in my cry for more discipline, more strict laws for youth, more enforcement of the laws and municipal ordinances by our minor justices and the police generally, as a deterrent for other youths, to scare them into some sort of decent life and behavior.

I do not forget that I was a boy. I am tolerant with youth at all times. Recently the boys of my neighborhood did \$25 worth of damage to my property. Who actually did it I will probably never know, but I recalled one lad and told him that the deed was deserving of punishment, and it was only my love for boys that prevented me from further action in the matter; but I warned him that a second offence would not be condoned, and requested him to tell his fellows.

Since then I have had no more damage and loss through boys. The

fear of punishment to follow is restraining them.

J. F. Henriques, New York.
As a general thing, Mr. Henriques is right. A good tanning now and again would work marvellous results for good among boys of any community; and those of us who were tanned when boys, will be the first to admit its good effects—see how good we are?

THREE GOOD PICKLES.

Cucumber Salad—Two dozen cucumbers, one quart of small white onions, one quart of vinegar, two cupfuls of white sugar, two teaspoonfuls each of celery seed, ginger, pepper, and salt, two tablespoonfuls of turmeric powder. Slice the cucumbers, add a layer of onions, sprinkle with salt, let stand one hour; rinse and drain well. Put the vinegar, spices, and sugar in a kettle; add the cucumbers and onions and let come to a boil; put in glass jars and seal.

India Relish—One peck of ripe tomatoes, chopped fine; drain; two cupfuls of celery, chopped fine; six onions, and six red peppers, chopped fine; two pounds of brown sugar, two ounces of white mustard seed; two quarts of vinegar, two ounces of cinnamon, one cupful of salt. Do not cook.

Best Pickles—Three hundred small cucumbers, six quarts of green peppers, sliced and seeded; four heads of white cabbage, sliced fine. Make a brine of boiling water and salt strong enough to float a new potato. Put the cucumbers, peppers, and cabbage into the hot brine, let stand twenty-four hours, drain thoroughly; put in crock with three-quarters of a pound of white mustard seed and a little less than three-quarters of a pound of turmeric powderscattered in between the layers. Cover with cold cider vinegar and put in cool cellar.

An unusual attraction announced for the December Century is "a conversation," set down by Maurice Hewlett, between himself and two of his characters, Senhouse and Sanchia, in which the three talk of town and country, and what the two offer their followers.

Paint Without Oil

Remarkable Discovery That Cuts Down the Cost of Paint Seventy-Five Per Cent.

A Free Trial Package is Mailed to Everyone Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powderpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much.

Write to Mr. A. L. Rice, Manufr., 47 North St., Adams, N. Y., and he will send you a free trial package, also color card and full information showing you how you can save a good many dollars. Write to-day.

THERE ARE NO "LAZY" CHILDREN.

There are two classes of children called "lazy."

First, there is the very large class that has energy enough when it comes to playing ball or jumping the rope, but develops a tired feeling whenever the stove-wood or the broom is mentioned. To call this "laziness" is a mere misuse of language. These children only wish to do the things in which they are interested, not those in which other people are interested. They have not yet realized that it is good to work, and all that they need is education that will turn their abundant activities into useful channels.

Then, there are those who really seem lazy, who are listless, stupid, indifferent, who play without enthusiasm and work only because and when they must. Many parents have been vexed and troubled by these children; but lately scientists have been investigating this class, and they say that the trouble is not laziness, or stupidity or obstinacy. The Youth's Companion gives the latest conclusions:

"There is no such a thing as a 'lazy' child. The normal child is interested, alert, bright-minded, full of waking curiosities about the world into which he has come, and endowed with an almost unquenchable physical vivacity. What, then, is the matter with the little, inert, stupid, dull-eyed creatures, forever at the bottom of the class, who never put a question, or seem to pass a given point?"

"The matter is that they are ill. Some of them are hungry, and it is as hopeless to expect a child to study well when he needs food as it would be to expect a fire that needs fuel to burn well. The hunger may be due to an acute lack of food, or it may be that the teeth are in such poor condition that the child can not chew, and therefore does not digest. Or it may be that the food offered to it at home is entirely unsuited to its needs.

"Some of the children can not hear well and some cannot see. They do not complain, because they do not know what is the matter. They accept constant rebuke and defeat with the dumb mystification of ignorance. Many of them have never drawn one natural breath since their birth, owing to the presence of enlarged tonsils and adenoids.

"These children can never compete with their fellows, until all these hindrances have been removed."

Science is sometimes spoken of as cruel and heartless. Nothing could be further from the truth, and it would be hard to find a more striking illustration of the divine compassion of real knowledge. When we all realize that children of this type deserve not punishment, or reproof, or ridicule, but pity and care and medical attention, the world will be a far brighter and happier place, and our sympathy with all unfortunates deeper and truer.

CACTI FREE.

10 specimens free with each \$25 order. Dealers take notice—order at once.

Mrs. S. I. Pattison,
Wholesale Collector Cacti,
Mesilla Park, New Mexico.

DAINTIES FOR SUPPER.

Delicious Chicken Sandwiches—Take cold boiled chicken and pound the meat to a paste; then mix in a paste made of the yolks of hard-boiled eggs, a little cream, and a little butter; season with salt, pepper, paprika, and a few drops of onion juice; spread on thin slices of white bread cut into symmetrical shape.

Cheese and Mustard Sandwiches—For these sandwiches use graham bread; spread it first with a thin coating of butter, then a coating of mustard, next with a layer of cottage cheese, and then add a layer of olives which have been chopped fine and mixed with mayonnaise.

Lettuce Sandwiches—These are always liked for afternoon tea and are as easily made as could be desired. Crisp, fresh lettuce and a rather highly-seasoned mayonnaise are the ingredients; use firm white bread, butter thinly each slice before cutting it off the loaf, and then spread it with a thick mayonnaise, lay the crisp little piece of lettuce on it and cover this with another slice spread in the same way.

Nut and Cheese Sandwiches—Either graham or Boston brown bread may be used for these. The nuts must be pounded or rolled with the rolling pin on a board until they are almost like a paste; then mix them with cream cheese, which has been moistened with milk or cream and seasoned with salt and paprika; spread the mixture on buttered slices of the bread.

Imitation Chocolate Cake Sandwiches—Take a slice of Boston brown bread and spread it with sweet butter; lay on top of this a thin slice of fine white bread; on top of this lay another buttered slice of Boston brown bread; continue this process until you have a sandwich about two inches in height, after the slices have been firmly pressed together. When this is cut through as if it were a cake, the resulting slices look like miniature pieces of chocolate cake with a white filling. The raisins in the Boston brown bread and the sweet butter make the taste of the sandwich sufficiently rich.

Rich Gingerbread—One-half cupful of molasses; one cupful of thick, sour cream; one-half cupful of sugar; one egg; a half teaspoonful each of ginger, cinnamon, and allspice; a pinch of salt, a level teaspoonful of baking soda, and enough flour to make cake batter. Mix together the molasses, sugar, egg, salt, spices; dissolve the soda in boiling water and stir into the sour cream. Then put all of the ingredients together, adding enough flour to make the batter of the usual consistency of cake batter, pour into a buttered pan, and bake in a moderate oven. If the cream is very sour, use a rounding teaspoonful of soda.

A FEW GOOD THINGS.

Salve for Burns—Melt together, taking care not to scorch, a tablespoonful of sweet lard and a lump of rosin rather larger than a nutmeg. Stir well after melting, take from the fire, and add a tablespoonful of spirits of turpentine. Apply when cool upon a soft cloth, or simply smear over the burn. This is the best made fresh every week or so, as the turpentine evaporates. It

will ease the pain of a burn instantly, and heal raw burn sores.

Lip Salve—Try out half a cupful of lamb fat, strain, and while still warm add a tablespoonful of finely shaved white wax and two tablespoonfuls of almond oil. Olive oil will answer, but almond serves better. Heat the mixture over boiling water and beat all well together. Color with alkanet root, scent with two drops of rose attar, and pour into small glass or earthen jars.

Washing Soft Woollens—Things knitted or loosely woven must never be rubbed. Instead, lave them up and down in lukewarm white soap-suds, squeezing gently between the palms. Rinse twice, at least—three times is better—in water the same temperature as the suds. Blue the last rinse lightly, even for colored things. Do not wring the garments; gather in a ball and squeeze hard instead. Let them dry spread on sheets in full sunshine. Take care not to pull or stretch them on the sheets; instead, leave them slightly crumpled until almost dry, then straighten and smooth out. Drying this way the things keep shape and elasticity.

For Tired Eyes—Lie flat and cover the eyes for three minutes with a soft cloth, wet in water as hot as can be borne. Take off and replace with a cold cloth, keeping it on the same length of time, three minutes. Or dash cold water in the eyes, patting them dry afterward. The alternation of heat and cold is as tonic as it is restful.

KITCHEN POINTERS.

Hints and Helps for Making Puddings—Always beat the yolks and whites of eggs separately, and use the whites as the last ingredient. When tin moulds are used for boiling or steaming puddings, remember to grease the cover of the mould as well as the mould itself. Lard is better for such greasing purposes, and cheaper than drippings or butter. In order to get the pudding to come easily from the mould, plunge the latter in cold water for a moment. A pudding cloth is preferred to a mould by many. This should be kept scrupulously clean.

When Making an Omelette, whip the yolks of eggs lightly and the whites to a stiff froth. It will be found much lighter than when made by beating the eggs altogether.

If a Stew or Soup is made too salt, add a few slices of raw potato, and cook a few minutes longer. The potato will have absorbed most of the salt without giving its own flavor to the soup.

LEMON HONEY.

A delicious filling for cakes or sandwiches may be made by grating the rind of three large lemons after scrubbing them thoroughly. Press out and strain the juice, put it with the grated rind into a double boiler, add one-quarter of a cupful of butter and one-half a pound of sugar. When very hot mix a couple of spoonfuls with the well-beaten yolks of six eggs, then add the eggs to the mixture. When it begins to thicken after constant stirring, cook slowly until very thick.

ODDS AND ENDS OF INTEREST TO OUR PEOPLE.

SPLINT BONES ON THE HORSE.

Can be Controlled by a Little Care When Animal Is Young.

Even a tyro in horsemanship will object to a splint on the limb of a horse. It is an easy matter to see it, and in his amateurish way, the novice will see it as he looks around the animal. "Oh," the dealer will say, "that is only a splint, it is nothing at all, it will never hurt him."

Thus it is that splints sell as par value many times. But the reliable horseman, who cares a bit for his reputation, will hesitate before assuring a customer, depending upon him in the matter, that the horse with a splint will never go lame or even that he will not go lame within a specified time. He will unhesitatingly go as far as to say that in the majority of cases splints do not give any serious trouble, and that careful work will cause them to disappear, but that is about as far as he will venture his assertions regarding the insignificance of the splint. When one has seen a goodly number of horses go lame, some of them permanently, through splints, it brings a sense of caution to the man who values his reputation.

Situation & History of Splint Bones. The splint has, in the horse, a rather funny association with what an Irishman might call his "prehistoric history." Paleontologists tell us that once upon a time the horse was not "stood up" on one large cannon bone as he stands now, but that he had at least three similar limbs reaching from the knee down for him to stand upon.

As time passed the horse came more and more to rely upon the middle one, and as these at each side became disused, they shrank up and gradually disappeared. Not entirely, however, for there are still to be found in the front leg of the horse, lying close at either side of the big cannon bone, two rudimentary bones which extend from the lower side of the knee down close to two-thirds of the way to the ankle joint. They are said to be useless, and they move very little, although they articulate with the knee joint, and they move relatively to the cannon bone. But when they are moved too much, irritation with inflammation follows, and a bony formation is deposited, which is called a splint. Very often this will cause little trouble or annoyance. A splint a few inches below the knee does not often do much harm, especially if it is not too big. But there is another one, up near the knee, which is of a kind to interfere with the articulation of the knee, which is of a very different character. It is very seldom that a horse wearing such a splint is able to go sound at all gaits without showing it. If they are able to start out all right, they will probably go very lame if worked hard or driven far. It is "only a splint," it is true, but it generally spells a ruined horse, just the same. Then there is a splint that old country horsemen call a "pegged" splint. It goes right through. If they stay just as they

are they will do but little harm, but there is a tendency for them to work farther round the cannon bone until they interfere with the tendons and their ligaments, and then it becomes a dangerous and damaging splint.

Still another splint is a kind to be seen often upon heavily-bodied, light-legged horses, such as are sometimes bred from a heavy mare of cold blood, and some sort or other of light horses. The fact of the matter is that the horse has usually a heavy body, big head, light spindle shanks, of poor quality, and the long splint looks like an effort of nature to strengthen the weakness of the limbs. If these splints do not grow in such a direction as to interfere with the tendons they will do little harm, but there is always a tendency for them to commence growing again, and they may at any time grow around so as to do this and cause the horse to go lame.

Splints are sometimes caused by the horse interfering, striking the leg with the other foot.

They are usually amenable to careful and patient treatment. They are apt to decrease with age in the horse. The time when they are most to be guarded against is when animals are young. It is an easy matter to look after them at this time if a little bit of care is taken. When colts are being broken or worked for the first time, one can easily once in a while lift the foot, and while it is off the ground run the fingers along the splint bones on each side. If any tenderness or swelling is present, let up on the colt at once, and stop working him. Give him a physic, bathe the limb in cold water, and blister with biniodide, about one part to nine, and give at least a month's rest.

Clover Hay Good for Horses.

Many horsemen are of the opinion that clover hay is not good for horses. Someone has told them that it causes heaves, and others say lung and throat troubles are encouraged by it.

To horses and colts, cattle and sheep, I have fed many tons of clover hay, redtop and timothy, and have found the former much superior in all respects to either of the other two.

City teamsters buy timothy hay at \$10 to \$15 per ton; often higher. They are prejudiced against clover, and will not buy it, even if it is much lower in price. The timothy hay they buy is usually so ripe that it is little better than oats straw.

A large part of the hays are made when they are overripe. Ripe grass becomes an indigestible wood fiber, and is more filling than nutritious. Not so with clover, however, for it is usually cut when in full bloom and when its feeding value is at its best. Chemical analysis tells us that such hay contains twice the amount of nutrients found in the best timothy or upland prairie hay.

Clover Puts Growth on Colts.

Every year I raise several colts for the market. In summer they are pastured on clover and in winter fed clover hay with corn and oats, a little bran, oil meal, etc., in addition. I finish them off for market when about three years old much the same as I do steers. My clover-fed colts always weigh more and are better than those of my neighbors fed on timothy.

BLOODED STOCK for October.

CARING FOR HARNESS.

The harness is usually one of the most neglected factors in the farm equipment, yet good care will prolong its period of usefulness quite as much as proper care will extend the serviceable life of any other part of necessary farm equipment. At least once each year it should be thoroughly washed and well oiled. All breaks should be promptly repaired in a workmanlike manner, and it will be much improved in appearance by an occasional cleaning and dressing. This is good work for stormy weather and need not interfere with more important work. But it should not be neglected and will not be on the well managed farm. However, like all jobs that can be postponed, it is often neglected longer than it should be for the good of the harness.

The average man will appreciate a well-kept harness and will take better care of his team when provided with one, so that a double profit is ordinarily derived from keeping the farm harness in good condition.

Cured Ringbone and Splint.

141 Austin St., Milwaukee, Wis., Oct. 5, '09.
DR. B. J. KENDALL CO.,
Dear Sirs:—I think it my duty to drop you a letter telling what wonderful success I have had with your Spavin Cure. My horse got a Splint and I thought I would try your liniment; after using two bottles I had cured it and worked it away completely. Some time after my horse got a ringbone and I bought two more bottles and worked that away also. Kindly mail me one of your free books A Treatise on the Horse.

Yours respectfully,
Edward Matz.

SAVE HALF THE LABOR

in sawing wood. You can do this and at the same time, cut more wood in a given time than in any other way by using

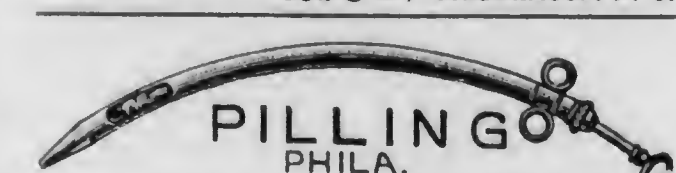


The IRELAND WOOD SAWING MACHINE
Table is mounted on grooved rolls, moves easily—cut of saw is down instead of against the operator as in old style machines. Must be seen to be appreciated. We also manufacture Drag Saws, Saw and Shingle Mills.

Send for prices and full information
Ireland Machine & Foundry Co.,
15 State St., Norwich, N. Y.

I Make the Best Scale on Earth

And I can prove it. Forty-five years ago I commenced selling scales to the user, and in return until he had found that my scale was exactly as represented. I have patented the only reliable **PILLING STOCK SCALE**, complete with steel frame, compound beam and beam box without extra charge, sold at a fair price. My scale is not cheapest, but BEST. I will send you full information, a scale on approval or book, "Lessons for Owning a Scale" if you address "JONES He Pays The Freight," 108 C St., BINGHAMTON, N. Y.



PILLING STOCK SCALE
Impregnators for Hares and Cows From \$2.50 up.
Artificial Impregnators are "Easy to Use." Write for pamphlet.
GEO. P. PILLING & SON CO., Philadelphia, Pa.

BLOODED STOCK for October.



No Danger From Fire When You Build With Concrete

A fire can wipe out in an hour what it may have taken a life-time to build.

Did you ever drop a lighted lantern in the barn or the wagon shed? You know how quickly the flames begin to dance about the floor and reach the wall. Every farmer has had this experience, and many have been sorry over the consequences.

You will never worry about fires in your barn or shed if built of concrete made with

ATLAS Portland Cement Makes The Best CONCRETE

ATLAS is the best cement manufactured. It is made of genuine Portland Cement Rock. It contains no furnace slag.

ATLAS has the greatest sale because of its uniform quality and absolute purity. There is only one quality of ATLAS manufactured—the best that can be made and the same for everybody.

The United States Government ordered 4,500,000 barrels of ATLAS for the Panama Canal. You get the same quality as the Government if you order only one bag.

Our Free Cement Book

"Concrete Construction About the Home and on the Farm" illustrates hundreds of different ways of using concrete. It will show you how to make and place the concrete mixture in the best and most economical way. It gives complete instructions and illustrates them with photographs, diagrams and plans. Send for the book now.

Ask your dealer for ATLAS. If he cannot supply you, write to

The ATLAS Portland CEMENT Co.
Dept. 127 30 Broad St. New York

Daily Productive capacity over 50,000 barrels—the largest in the world



None Just as Good

THE NEW YORK STATE FAIR.

The 70th Annual New York State Fair, held at Syracuse from September 12th to 17th, was by far the greatest exhibition ever held in the state.

The educational features, the financial gains and the number in attendance surpassed all previous efforts.

The entries in the dairy products department, under the supervision of R. A. Pearson, Commissioner of Agriculture, exceeded by 200 those of last year. Over 800 entries were made in the butter, cheese, milk and cream classes.

The plan of having the judging done before the formal opening of the fair, was an innovation which proved a great benefit to visitors. The educational value was increased for the visitors were able to tell the relative standing of the various exhibits.

The milk samples submitted were double the number of last year. The entries in the buttermaking competition, one class open to men and one

to women, had twice as many contestants as last year. This feature proved of great interest to the visitor and the amphitheater in which the contests took place was crowded during the trials.

Three new classes were instituted—one for starters, one for judging cheese, and one for judging butter. The classes for essays on dairy subjects did not prove as attractive as the previous year.

In the cattle department over 800 head were exhibited at an estimated value of \$500,000. The champion Brown Swiss herd of Europe and America, owned by E. M. Barton, of Chicago, was at the fair. Two exhibitors in the cattle show alone had over \$100,000 worth of exhibits. It is claimed by breeders that the show of Guernseys, Jerseys, Ayrshires and Holstein-Friesians was the best in the world.

SWINE AT THE ROYAL.

The entries already made in the Duroc Jersey division of the swine department indicate keen interest in this section of the American Royal Live Stock show, to be held in Kansas City, October 10 to 15. E. W. Davis & Co. of Glenwood, Mo.; McFarland Bros. and B. W. Harned of Sedalia, W. T. Hutchinson of Cleveland, are among those who have filed entries.

Besides the prize money offered,

there are several special premiums in advertising, which appeal to the swine breeders under the present prospects of a heavy demand for good breeding stock. Dr. J. J. Boyd, Reeds, Mo., superintendent of the division, says he looks for a good show of Duroc Jerseys. The Chester Whites will be equally strongly represented, with herds already entered from R. F. Fantz of Pleasant Hill, Sidney D. Frost of Mirabile, Mathew & Worth of Grant City, and Walmire Brothers of Peculiar.

There are many special premiums offered for Chester Whites, also, which look good to the breeders, who are of course eager for the distinction of winning prize money at the Royal. W. W. Walmire of Peculiar, Mo., is superintendent of the Chester Whites. The Berkshires will have their usual strong display, under the management of Frank S. Springer, Springfield, Ill.

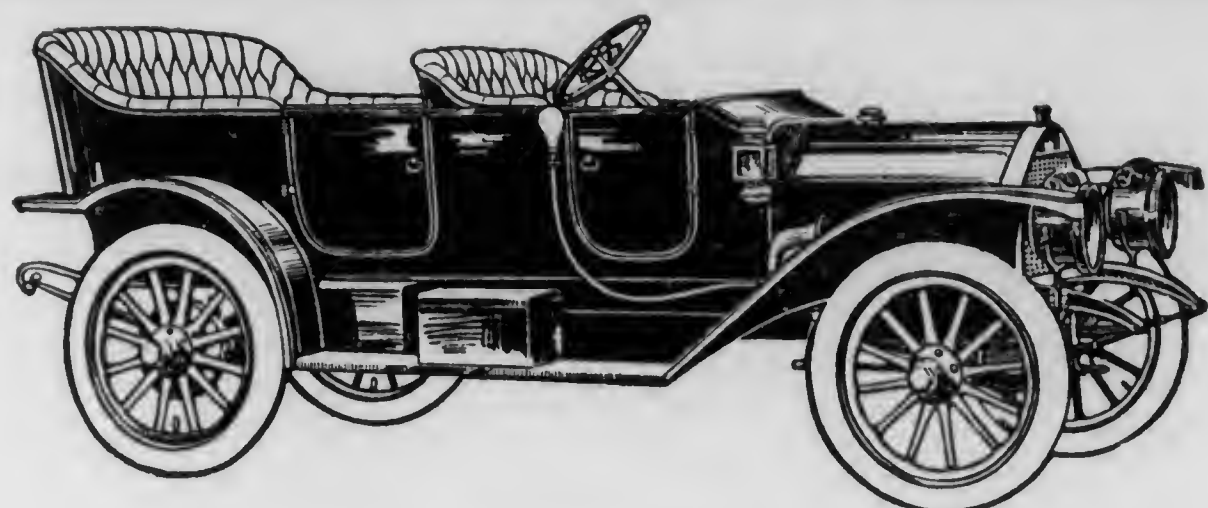
There died near Leicester recently, a sheep aged twenty-two years, which, it is said, was the oldest sheep in England.

It is doing things at the right time, and never neglecting the flock for a single day, that brings success.

In the long run the most unpleasant truth is a safer companion than a pleasant falsehood. — Theodore Roosevelt.

STUMP PULLERS

Warranted the most practical machine made. One man can lift 20 tons. Made in 3 styles, 10 sizes. Screw, Cable and Hand Power. We manufacture a **Tilt Ditcher** and best **CORN HARVESTER** ever made. Cuts two rows with one horse. Agt's wanted. Write for catalog. Box 22, H. L. Bennett & Co., Westerville, Ohio.



Enger 40 Torpedo--\$2150

The Enger "40" Brought a New Price Era

Its Introduction a Year Ago Was Timely. It Brought True Values and a Standard Product From the Chaos of an Unorganized Industry.

A NEW PRICE

The prices of the greatest part of the automobiles on the market today were set before real car values—under the present modern method of manufacturing—were known.

It was not the part of the earlier builders to lower the price of their product.

They felt that—to the public—it would seem a drop in quality as well as in money.

That is psychological instinct.

Hence these manufacturers have hung to their exorbitant prices—in spite of the decreased cost of production due to organized capital.

They have not kept up with the public's intelligent idea of values.

A NEW ERA

Thus, the Enger "40" marked a new era—and set the first ten years of automobile development back into motor history.

The Enger is a big standard car—selling at a 1911 price.

It was the first car to be sold at the new price—in the era of motor history.

Automobile prices will not go much lower—despite public opinion.

The present criterion of price is the Enger.

You can safely judge by it in making your selection.

We will build the following type for 1911:

Enger 40 5-Passenger Torpedo.....	\$2150	Enger 40 Regular 4-Passenger.....	\$1700
Enger 40 Touring Car, fully equipped..	\$2000	Enger 40 Roadster Torpedo front.....	\$1650
Enger 40 4-Passenger Torpedo.....	\$1750	Enger 40 Roadster	\$1600

The Enger Motor Car Co.,
Gest & Summer Sts., CINCINNATI, OHIO.

ENGER BUILDING POPULAR MODELS

The Enger line affords a variety of models for selection.

One of these is the Enger Torpedo "40". It ranks among the first in beauty of body design. It is the straight line, 5-passenger construction.

The Enger Torpedo is one of the best looking cars of this popular type. The body is roomy and luxurious.

It is built with taste and comfort in view—minus the purely unnecessary luxuries.

The average owner of medium priced cars does not know comfort in motoring.

Medium priced models, heretofore, have had cramped bodies and short foot room. That is because there are no big cars at the Enger price.

The luxury of body room in the Enger is apparent at the first sitting. The same is true of both the Enger "40" Torpedo and the Enger "40" touring car.

All models have the same proven "40" horse power chassis.

SAVE YOUR PRIDE

The Enger gives the man who can only afford a moderate priced car an opportunity to own a machine he will feel proud of in any motor gathering.

This is the reason the Enger has appealed so successfully to the intelligent conservative buyer.

He finds—on investigation—that he is not paying for an atmospheric prestige—but is buying a power plant and automobile equipment at their true value.

That means—he is buying an automobile with the same sense of values as he does when buying a motor boat, a gasoline engine—or any other staple commodity of every day use.

Base your selection on an Enger. Send for descriptive literature today.

THE EASTERN FARMER BLOODED DAIRYMAN AND POULTRY RAISER



Volume XVI

Number X

PUBLISHED MONTHLY AT

OXFORD, PENNSYLVANIA

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December
1910

Blooded Stock, The Eastern Farmer, Dairyman and Poultry Raiser December, 1910

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Entered at the Post-office at Oxford, Pa., as Second-Class Mail Matter, May 27, 1899.

OF INTEREST TO YOU

FEAR OF GERMAN REFINERS KEEPS SUGAR RATE DOWN.

Proof that fear of German refiners flooding this country with their sugars at the present rate of four and one-half cents per pound alone prevents the American Sugar Refining Company from raising the price of its manufactured commodity is now understood to be in the possession of the Federal prosecutor.

This proof, it is understood, will be used in the event that counsel for the Sugar Trust raises the contention that as the result of its combination and improved facilities the price of refined sugar has been reduced from 13½ cents per pound in 1870 to 4.76 cents per pound in 1909, and 4½ cents at present.

"The German refiners hold the key to the price of crystallized sugar," said a person high in Federal authority yesterday, "and the Sugar Trust lawyers and trust officials know it perfectly well."

Trust Official's Claim.

A prominent official of the American Refining Company yesterday called the attention of a World reporter to the following excerpt from the Federal bill of equity:

"In 1909 the total consumption of sugar exceeded 3,250,000 tons, the per capita was more than eighty-three pounds per annum—four times that of 1850, and the cost to consumers was \$1,000,000 per day."

In commenting on this clause the Sugar Trust official said: "To me this appears an excellent argument in favor of this combination. As a result of the efforts of the American Sugar Refining Company four times more people eat sugar now than in 1850 and at a cost of nine cents per pound less than in 1850."

Through the same Sugar Trust official it became definitely known yesterday that the American Sugar Refining Company is perfectly willing to reorganize if the Government can

prove that its present formation is in violation of the Sherman Anti-Trust law. The trust's attitude, however, is that as the result of the expert legal advice of James M. Beck, its chief counsel, its president and directorate have become convinced that the corporation is entirely within the law.

While Charles H. Allen, treasurer of the Sugar Trust, announced in a statement to The World on Monday that the corporation is now operated under another regime than that which controlled it in the past, it is authoritatively known that the Federal prosecutor holds that its general methods of illegal monopoly are the same under the leadership of President Washington B. Thomas as they were under the late H. O. Havemeyer.

H. O. Havemeyer's Methods.

The methods used by the late Henry O. Havemeyer in dominating his own directorate of the American Sugar Refining Company are sensationally exposed in one of the exhibits attached to the bill in equity. This (Exhibit F) comprises the minutes of a meeting of the Board of Directors of the American Sugar Refining Company, March 10, 1892.

John E. Scarles, Jr., Secretary of the trust and Havemeyer's right hand man, stated that the object was to act upon the informal negotiations which had been going on with reference to the acquisition of outside refineries.

Havemeyer retired from the conference with his brother, Theodore A. Havemeyer, and left the remaining directors to contemplate a nice little proposition which he put up to them in writing, to the effect that as he had the cash he would buy the shares required to secure control of the \$10,000,000 Franklin Sugar Refining Company "at a price somewhat below the market price of to-day, to compensate me for my outlay and for the risk consequent upon the large amount of the transaction. I shall therefore retire from the meeting. Your action

OUR ADVERTISERS—We believe that every advertisement in this paper is backed by a responsible person. But to make doubly sure we will make good any loss to paid subscribers sustained by trusting any deliberate swindler advertising in our columns, and any such swindler will be publicly exposed. We protect subscribers against rogues, but we do not guarantee to adjust trifling differences between subscribers and honest, responsible advertisers. Neither will we be responsible for the debts of honest bankrupts sanctioned by the courts. Notice of the complaint must be sent us within one month of the time of the transaction and you must have mentioned *Blooded Stock* when writing the advertiser.

EDITORIAL DEPARTMENT—The editors are always glad to examine manuscripts suitable for publication in this magazine. Photographers are invited to submit photographs of subjects pertaining to any phase of farm life. Stamps should accompany both manuscripts and photographs to insure their return, if they are not accepted.

must be without my vote."

Havemeyer then had another letter read, while he was waiting in the next room, in which two members of the trust's directorate wrote him stating that they understood that he had stock to sell and desiring to know whether he would sell it to the combination.

It also appears from the minutes that H. O. and T. A. Havemeyer had secured 45 per cent of the stock of the Spreckles refinery, which they would only sell to the trust, of which both were directors and the former the president, at a "considerable advance upon cost."

After some further discussion the resolutions, with the amounts filled in as Havemeyer requested, were unanimously passed.

Changes in Organization.

Changes in the organization of the American Sugar Refining Company were announced yesterday at the corporation's offices at No. 117 Wall street, as follows:

Joseph A. Ball has been appointed assistant to the president. He became connected with the Boston Sugar Refining Company in 1880, remaining with it until 1891, when it was merged with the American Sugar Refining Company and the Franklin Sugar Refining Company of Philadelphia.

Judson Lounsbury has been placed in charge of the sales department. He has been directly connected with the sales department of the company for fourteen years, and for ten years previously in other capacities.

SUGAR TRUST'S GRIP ON THE PHILIPPINES.

(Special to The World)

BOSTON, Nov. 29.—The methods of sale and exploitation of the friar lands in the Philippines were strongly denounced in the annual report of Erving Winslow, Secretary of the

BLOODED STOCK for December.

Anti-Imperialist League, at a meeting at the Twentieth Century Club here to-day. Mr. Winslow's report said:

"Imperialism has developed into a definite claim for a permanent colonial policy. President Taft reconciles this policy with his professions of attachment of the Filipinos, inasmuch as he pretends that they would be a happier people as permanent colonists of the United States.

"Where 20,000 native tenants are compelled to pay an average annual rental of \$1.30 an acre, the Havemeyer sugar exploiting syndicate is enabled to purchase outright a 55,000-acre estate on annual payments of 32 cents per acre.

"After appropriating 100,000 pesos of public funds to loan to agriculturists who had lost everything and were unable to put in their crops, rules and regulations were issued whereby these loans could be made only for the purpose of cultivating sugar cane in certain restricted areas where the tenants were compelled to furnish the cane to certain mills located on estates which had been taken possession of by the Manila Railway Company, the Speyer syndicate of New York.

"The plan of the land sales so far has not worked out altogether smoothly and to the satisfaction of the purchasers. The labor question is a very vital one. The American Governor of Mindoro, where a Mr. Poole had acquired 55,000 acres of the friar lands prepared a flaming advertisement for the English and Spanish newspapers 'urging the Filipinos to emigrate to that island of prospective sugar,' which reads:

"Attention, Filipinos! Come to Mindoro! Become independent farmers and earn enough to support your family. There are large areas of public land in Mindoro suitable for agriculture, which can be obtained by purchase, lease or by right of homestead. If you prefer to earn enough first to enable you to build a house and buy animals you can obtain employment on the sugar estates at 35 cents a day."

Write your representative in Congress and ask him what he knows about this, sending the entire clipping to him. Say, neighbor, do you think you could "lay up" money enough to build a house and buy animals on 35c per day? These poor Filipinos do not dine on fare such as is supplied Congressman at the "New Willard" in Washington.

YES, THE RAILROADS COULD SAVE ONE MILLION DOLLARS A DAY.

And Louis Brandies, One Lawyer Useful to the Citizens in This Country, Can Easily Tell Them How.

Louis D. Brandies, of Boston, one of the ablest lawyers in America and a public spirited man, has taken up the fight of the shippers against the railroads.

We are so accustomed to see men of the Elihu Root type selling their brains, energy and ability to corporations that it is a pleasure to have a man like Brandies fight now for the small people against the railroads, as he has fought in the past for working

women against horrible conditions of employment and for many others that must pay their lawyers with gratitude rather than cash.

Brandies told the railroads that the trouble with them is stupid waste of money. He said that they could adjust their financial condition, pay the dividends demanded by the non-productive owners simply by stopping their wasteful methods, and that there was no necessity for increasing charges to the shippers—the business men, manufacturers and merchants whose energies mean prosperity.

Brandies told the railroad managers that the railroads of the United States waste one million dollars a day—which would be three hundred and sixty-five million dollars a year; that is to say, five per cent interest on SEVEN THOUSAND THREE HUNDRED MILLIONS, about three per cent on the total capitalization of all the railroads of the United States.

Certainly the railroad men ought to be interested in the possibility of saving five per cent annually on seven thousand three hundred millions of dollars.

The railroad managers replied rather cynically that they would pay Brandies a good salary if he would show them how to save that money. Brandies replies that he is willing to show them without any charge whatever, and people will be greatly interested in his views.

There isn't any doubt that a great deal of money could be saved at once—merely by the stopping of inside stealing on the part of the railroad management.

For instance, the Illinois Central Railroad has been systematically robbed by its high-spirited officials, charging against the road millions for work never done in the way of repairs furnished, supplies and others. Stopping that would be a good way to save money.

And for years "inside" interests with special charges on bridges, special charges for trains entering the Grand Central Station, special graft in connection with the "White Freight Line" and otherwise have robbed the New York Central and its stockholders of millions upon millions—consistently skimming the cream off the railroad milk.

To stop that entirely would be a good beginning of economy.

There have been revelations in connection with nearly all the railroads—even the best managed—showing existing graft and robbery that steal from the stockholders, just as Post Office graft, rebates and extortionate rates steal from the general public.

But the great waste in the railroad world is not the waste of bad management, private graft or deliberate robbery. It is the waste IN HUMAN BRAINS, ENERGY AND ABILITY.

When a railroad system hires a traffic manager it does not by any means hire a man who will merely manage well the traffic of the railroad that employs him. The manager is hired especially TO TAKE THE TRAFFIC AWAY FROM SOME OTHER RAILROAD.

Some of the ablest men in the United States are engaged in railroad management—perhaps the ablest, for it is probable that such men as J. J. Hill, George J. Gould and McCrea represent the highest development of business ability in the United States.

The trouble is, however, that these men can use only one-quarter of their ability in building up their railroads and managing them economically—three-quarters of their ability must be devoted to fighting each other, fighting Wall Street sharks that juggle with their stocks, injuring their credits, fighting the powerful trusts that demand special privileges, special rights and rebates and back up their demands with dangerous threats.

The Post Office of the United States has not had in its employ a hundredth or a ten thousandth part of the ability that has been at the service of the railroads in the United States.

Yet the Post Office pays its employees relatively well—although not well enough. It carries a letter from New York to the extremity of Alaska for two cents, and transacts all its business at the lowest possible cost with the greatest possible dispatch.

It would be run to-day at a large profit, if it were released of railroad graft and imposition. It would make a profit of tens of millions annually if the express companies did not own the people's representatives and did not prevent the people from having a parcels post.

The Post Office of the United States has accomplished wonders of economy and efficiency because the ability in the Post Office is devoted to Post Office affairs and is not wasted in competition.

If we had two or three post office systems, with the best men in each system thinking of the competitor instead of thinking about post office affairs, letter postage would be ten cents instead of two, and there would be no mail delivery at all in the distant places where it does not pay—just as there is now no express delivery in distant places where it does not pay.

If the united railroads of the United States were managed for the people by men able as those that now manage them comparatively, by men thinking only of railroad development and of public service, the saving would be infinitely greater than a million dollars a day, and the service infinitely better than it is now—any you may be sure that Hill and Gould and the others know this.

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The editor of *Blooded Stock* believes the foregoing editorial written by Arthur Brisbane—one of the greatest of editors. Brisbane himself stands to the N. Y. Journal in the same relative relation as Hill, Gould and McCrea do to the railroad interests. Any business to be well managed must be backed by brains—brains cost money, usually, consequently all the large corporations and special interests are manned by men of ability, experience and brains. But where vital interests of the people are at stake we need honest and able, as well as non-mercenary lawyers to fight for the people. When these illumine the dark spots in the business firmament they should be duly noted by the people and these men put in the highest offices of the land. If you are for Mr. Brandies for U. S. Senator and live in Massachusetts make it known. You couldn't have a better one.

The Great International Live Stock Show.

Fine Display of Blooded Stock--Prizes Awarded--Society in Attendance--School Children Take Possession of Grounds.

By Otis H. Waldo, Jr., Marquette Building, Chicago.

Chicago, Nov. 26, 1910.
To the Editor, Blooded Stock,
Oxford, Pa.

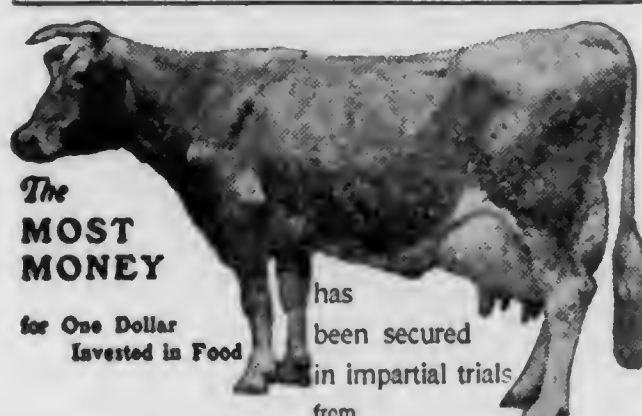
Long before November 22nd of this year, the opening day of the International Horse Show at Chicago, busy carpenters, electricians and decorators were hurrying to completion work on the great amphitheatre, barns and surrounding grounds at the Union Stock Yards to transform them into a veritable fairyland of lights and fancies. Thus when we enter the grounds between the white pylons at the gates and step in upon the finished product, it is to wonder at the ingenuity of man.

Who can describe that sine qua non, that finishing touch, the master stroke which turns into the arena the faultless horse and admirable equipage? Is there a word or sentence which will describe the sensations aroused by the parade of competing highly mettled horses?

With the mind stirred to the highest pitch by martial music, there comes a lull, a silence, and then the bugler sounds forth his startling notes and there come the coaches manned by such men as Judge W. H. Moore, of New York; Mr. W. M. Marshall, of Chicago; Mr. C. W. Watson, of West Virginia, and Mr. Hugh Sutherland, of Winnipeg, Canada, and we are carried back an hundred years and more to the coaching days of Merrie England.

Now summoned from the ancient revelry we are called to bear witness to very modern skill in the breeding of stallion saddle horses. Prize winners of Kentucky, Misosuri, and Illinois, are exhibiting their five gait. Kentucky's Choice, a high mettled jet black stallion has finished his test and stands breathing fire, an exquisite model for the old master painters. But our good judges award the blue ribbon to Joe McDonald, a black stallion of Illinois, who is quieter on the bit, amid the wild cheers of his very numerous admirers.

Then come the hackneys, the Shetland ponies, Welsh ponies, ponies other than Shetland ponies and not over 14 hands 1 inch, 3 years or over, pairs of ponies other than Shetlands, tandem pony teams other than Shetlands, in the latter classes of which



The MOST MONEY

has been secured in impartial trials from

The GUERNSEY COW

Her Dairy Products have Scored the Highest Quality and Best Color

Full information of this fine breed of GUERNSEY CLUB, Box Y, Peterboro, N. H.

Mr. Vanderbilt with his quatrain of "Wonders" from Newport, R. I., was a very formidable and successful contestant.

The international jumping contest included officers from England of the 7th Hussars, 16th Lancers, Scottish Rifles, and Cavalry Club, from France of the 1st and 4th French Dragoons, from Holland of the Royal Dutch Hussars, and from the United States of the 7th, 11th, 14th and 15th Cavalry, U. S. A. This was indeed a very interesting contest in which the United States won first and France second place. One French and one Dutch officer where man and horse hurled to the ground with such force that it seemed impossible that they could come up as they did unhurt.

On the final night at the Horse Show, the audience was treated to a sight of the six horse teams of Swift & Company, Armour & Company, Morris & Company, and the Lafayette Stock Farm, and a lengthy parade of Percherons and other heavy draft horses, which was a prelude to the International Live Stock Exposition of the following week.

Black is the fashionable color in the fat stock section of the cattle division of the International Live Stock Show. This fashion was inaugurated by fat little Shamrock II, winning the grand championship of champions among the fat steers, and it was sealed with a treble-dyed seal of approval yesterday by three carloads of black and hornless Aberdeen-Angus cattle winning all the prizes and the grand championship for exhibits of carload lots of all breeds of fat cattle.

The carload that won the grand championship was exhibited by Ed P. Hall, of Mechanicsburg, Ill., whose prize money to date at this year's International Live Stock Show already amount to \$1,125. His herdsman, who fitted the grand champion carload, will receive one of the International exposition's two gold medals.

Champions to Be Sold.

Grand Champion Shamrock II, the wonderful black grade-Angus calf that weighs 1,100 pounds, and the carload champions will be sold at auction this afternoon. They will be slaughtered forthwith, and so will the champion fat sheep and champion fat swine. Friday the cattle carcasses will be sold at auction at Morris' packing house at 1 p. m.; the sheep carcasses will be sold at Swift & Co.'s at 2 p. m. The swine carcasses will be sold at Armour's at 3 p. m.

Another sensation was furnished yesterday in the breeding classes when the judges arrived at Ringmaster as senior champion shorthorn bull, and Roan Sultan, owned by Thomas Johnson & Son, of Columbus, O., as junior champion shorthorn bull.

Finally the royal purple ribbon was conferred upon Ringmaster, a magnificent 2-year-old bull weighing 2,000 pounds, bred and owned by White & Smith, near St. Cloud, Minn.

Awards in Sheep Classes.

The important awards in the sheep department were:

Champion aged Shropshire ram—G. Howard Davison, Millbrook, N. Y.
Champion Cheviot ram—G. W. Parnell, Wingate, Ind.

Champion Cheviot ewe—W. D. Calland & Son, De Graff, O.

Champion Hampshire ram—William F. Renk, Sun Prairie, Wis.

Champion Hampshire ewe—C. O. Judd, Kent, O.

Champion Dorset ram—W. H. Miner, Chazy, N. Y.

Champion Dorset ewe—W. H. Miner, Chazy, N. Y.

In the swine department three breeds were judged—Berkshires, Hampshires, and Poland-Chinas. W. S. Corsa, of White Hall, Ill., carried off the grand championship for boar and sow in this breed.

Melarry & Hunter won the grand championship for boar in the Poland-China breed, while the sow honors went to Francis & Hunter.

Women on horseback, some riding astride and some on side saddles, cantering about the arena of the Dexter

Holds World's Record
The New 1910 Model
U. S. SEPARATOR
Is emphatically the BEST and the only one for YOU to buy.

1. It skims the cleanest.
2. It's built the strongest.
3. It's the easiest cleaned.
4. It's the most convenient.
5. It requires least power.

The U. S. defeated all other separators at Seattle on these five essential points and

Won Grand Prize
Vermont Farm Machine Co.
Bellows Falls, Vt., U. S. A.

Send for Cat. 6
It tells you all.

Stop That Limp

Keep your horses working perfectly all the time. Don't let a Spavin, Curb, Splint, Ringbone or any Lameness stop them. Cure it quickly and safely, without leaving a scar, blemish or white hairs, by using

Kendall's Spavin Cure

"I have used your Spavin Cure for over 25 years for treatment of horses for Sweeney, Spavins and general lameness. I believe that it has no equal. I have had a large experience with its use, and marvelous success, and most heartily recommend it as a general-purpose liniment."

Respectfully,
C. K. Edwards, Los Angeles, Cal.

We have thousands of other letters like this. Price \$1.00 a bottle; 5 for \$5.00. An excellent liniment for household use. Sold by all druggists. Ask them for free book, "Treatise on the Horse," or write to

Dr. B. J. Kendall Co., Enosburg Falls, Vt.

amphitheater in a competition between the various riding clubs of Chicago, furnished a spirited entertainment last night for the thousands of visitors at the International Live Stock Exposition. Not so pretty and fascinating, but more noisy and exciting, was the game of pushball played on horseback by rival teams composed of members of the traders' exchange and the live stock exchange.

A murmur of surprise, followed by a ripple of laughter, ran through the thousands of spectators when what appeared to be a huge football, seven feet in circumference, was rolled into the tanbark arena. Cow horses of the western plains were used in the game, and the spectators were aroused to a high pitch of excitement during the contest.

Carden's Judging is Rapid.

Setting a new record in rapid calculation as applied to the judgment of fat cattle, Richard G. Carden, the judge from Fishmoyn, Templemore county, Tipperary, Ireland, during the day weeded through three classes of grade and crossbred cattle, in which there were over sixty nominations, and finally pinned the blue ribbon championship insignia on Victor, property of the Iowa State Agricultural college.

The colleges were particularly prominent in the championship awards, as the University of Nebraska annexed the prize in the Angus breed with Prince of View Point. Other championship winners were W. S. Van Natta, of Fowler, Ind., who took the ribbon in the Hereford classes with Donald Lad, and James Leask, of Green Bank, Ont., who won the shorthorn championship with Roan James. It proved a surprise when it took honors over Benefactor, the Kansas State Agricultural College nomination, which won the championship at every state fair at which it was shown this year.

The success of Roan James places the Canadian exhibitors in line for the grand championship of the show, which they won in 1907, and the reserve championship in 1908. Roan James is a half-brother of the winner in 1907 and the reserve the following year.

Seeks Grand Champion Today.

This morning Mr. Carden will continue his investigations into the qualities of a dozen or more champions of various breeds selected by the other judges in the cattle department, in determining the winner of the grand championship honors.

In the swine department honors were divided between the Iowa State College, Purdue, and the Canadian exhibitors, while in the sheep department the colleges were more conspicuous among the winners than ever before, although Canada will win the bulk of the ribbons.

Double honors fell to the University of Missouri yesterday when the twelve judges of the agricultural students' contests, held annually in connection with Chicago's International Live Stock exposition, made known their official figures, the number of points scored by the rival colleges represented in the contests, and the names and standing of the first ten students at the top of the list.

Missouri not only won the team trophy but it has the extra honor of cor-

TO BE SURE OF A GOOD MANURE SPREADER LOOK FOR THE I H C MARK



THERE is one way to be sure of satisfaction in buying a manure spreader—one way to be sure of highest quality and greatest value. See that the I H C trade mark is on the spreader you buy. The proof is the experience of thousands of careful farmers—and the records of I H C spreaders on their farms.

There are many reasons for the efficiency, strength, simplicity, and durability of I H C spreaders. First, they are made on the right principle—second, of the highest quality materials—third, by master workmen,—and fourth, in the best equipped factory for the manufacture of manure spreaders.

I H C Manure Spreaders

are built up to a standard—not down to a price. They are made as all manure spreaders ought to be made. There is no experimental or "freaky" construction in them. They stand up and work perfectly month after month and year after year.

Call on the local I H C dealer and let him show you the many I H C advantages. Note the easy adjustment of the feed, enabling you to spread just the right amount of manure in just the right places. Note that the beater bars are designed to thoroughly pulverize every particle of manure. Note the wide tires, the roller-bearings, and light-draft features. Note all the other I H C features. Then remember that you are assured of satisfaction by the I H C reputation.

You can have a choice of three spreaders. **Corn King** and **Kemp 20th Century** are of the return apron type, and **Cloverleaf** spreaders are of the endless apron style. All are made in several sizes ranging from 30 to 70 bushels capacity.

If not convenient to see the I H C local dealer at once, write direct for catalogues and all other information you desire.

INTERNATIONAL HARVESTER COMPANY OF AMERICA
(Incorporated)

Chicago USA



ralling the first four places on the honor list. As there are only five students on each college team and as Missouri's fifth man was only a few marks below the leading quartet, the FOUR—B. S. state can boast of having its entire team of five students in the honor list of the first ten.

Forty-five students in all, making nine teams from as many colleges, competed, which emphasizes the completeness of Missouri's sweeping victory.

Ten Ranking Students.

The ten ranking students, as announced yesterday, are:

W. R. Hechler, University of Missouri	1,089
Walter S. William, University of Missouri	1,087
T. R. Douglass, University of Missouri	1,075
S. T. Simpson, University of Missouri	1,074
C. M. Henderson, Texas Agricultural College	1,074
L. Tompkins, Iowa State College	1,071
A. J. McMillan, Manitoba Agricultural College	1,060
George S. Templeton, University of Missouri	1,054
W. P. Forbes, University of Nebraska	1,051
K. F. Warner, University of Nebraska	1,043

The Missouri students excelled all their opponents at judging horses, cat-

tle and hogs and were second in the score for judging sheep. Texas Agricultural college students won the sheep judging contest.

Points Scored by Breeds.

By breeds the points scored by the college teams were:

College or state	Unl.	Horses	Cat.	Sheep	Hogs	Total Pts.
Missouri	1,280	1,418	1,297	1,384	5,378	
Nebraska	1,256	1,401	1,242	1,230	5,129	
Iowa	1,270	1,284	1,277	1,285	5,126	
Texas	1,228	1,344	1,304	1,238	5,114	
Manitoba	1,236	1,390	1,200	1,166	4,992	
Ohio					4,951	
Ontario					4,883	
Kansas					4,735	
Kentucky					4,720	

J. Ogden Armour donates \$5,000 for twenty agricultural college scholarships, to be distributed among the colleges whose students have been most successful in the judging contests, according to the above awards.

Judge of Animals Today.

This morning the judging of the various animals for prizes will begin in earnest. The attendance all day yesterday at the exposition in the international amphitheater at the Union stockyards was generous and much interest was displayed in the horses of the foreign cavalry officers that competed in the many jumping contests of last week's horse show.

Tonight the first game of the push ball tournament will be played between members of the Traders' exchange and a team from the Live Stock exchange. There is atrophy at stake for the winner.

Thousands of agriculturists in attendance at the International Live Stock exposition last night loudly cheered John J. Mitchell, president of the Illinois Trust and Savings bank, when he announced that he had acquired Dan Patch, the grand champion Shire horse of the world. The horse was named after the famous pacer.

Besides the purchase of Dan Patch, for which it is reported Mr. Mitchell paid \$10,000, he has added three imported hackney blue ribbon winners to his stable at Lake Geneva, his recent purchases from the Truman Pioneer Stock Farm, near Bushnell, Ill., including Queen of Diamonds and Tit-willow Connaught.

Dan Patch for three successive years has taken grand championship honors at the International show here. The horse is 5 years old and weighs 2,400 pounds.

Iowa Bull Wins First Prize.

Although the United States scored a victory over Canada in cattle classes judged, it did not bring joy to Mrs. O. V. Battles, of Maquoketa, Ia. She

had hoped to win the championship of the Angus classes with her Black King of Rosemere, which the judges decided was second to Glenmore Proud Lad, owned by Patrick Leahy, of Williamsburg, Ia.

Mrs. Battles occupied a box at the judging arena with a party of friends and told how she had nursed the calf—feeding it from a bottle in her own kitchen—with the hope that it would carry off the blue ribbon and the championship in every class in which it was entered. She was disappointed when she saw the judge pin a blue ribbon on Glenmore Proud Lad, which was sired by an imported bull.

Other Prize Winners.

Other prizes were awarded as follows:

Aberdeen-Angus, bulls 3 years old and more, O. V. Battles' Oakville Quiet Lad; bulls 2 years old and under 3, W. D. McHenry; senior yearling bull, Edwin C., owned by M. H. Donahue of Holbrook, Ia.; junior yearling bull, entry of D. Bradfute of Cedarville, O.

Hereford, grand champion bull, Repeater, owned by O. Harris, of Harris, Mo.; grand champion cow, Scottish Lassie, owned by J. C. Logan, of Kansas City, Mo., which also won the junior heifer championship; aged herds, won by entry of O. Harris, who also took the junior bull championship with Gay Lad VI.; senior cow championship, won by Lady Fairfax IV., owned by W. T. McCray, of Kentland, Ind.

Shorthorns, junior bull calf, won by Thomas Johnson & Son, of Columbus, O., who also took most of the other championships in this class.

Galloways—Majority of firsts went to C. S. Hechtner, of Charlton, Ia.

Good Showing by Illinois.

Illinois scored over several other states and Canada in the judging of Shire horses. Prominent among the winners were Finch Bros., of Joliet, Ill., Truman's Pioneer Stud Farm, of Bushnell, Ill.; Robert Burgess & Son, of Wenona, Ill., and George E. Brown of Aurora, Ill. Iowa was well represented by Peter Hopley & Son, of Lewis.

William Cooper & Nephews, of Chicago, won prizes in the Oxford sheep classes, competing against Canadian and United States breeders. Other winners of the chief prizes were George McKerrrow & Sons, of Pewaukee, Wis., and R. J. Stone, of Stonington, Ill.

In the Shropshire classes Chandler Bros., of Charlton, Ia., won both the ewe and ram championships.

Among the championship winners in the swine department were William Essig, of Tipton, Ind.; L. C. Miller, of Canton, Ill.; Long Bros., of Elwood, Ill.; Patterson & Rouse, of Payne's Depot, Ky., and Hugh Atkinson, of Mount Sterling, Kv., in the Hampshire classes.

The championship steer of the show, Shamrock II., was sold at auction to C. H. Morgan & Co., butchers in Kenwood, for 60 cents a pound for his 1,100 pounds on the hoof. This is the highest price ever paid for the grand champion of the International.

First prize for four horse team shown to wagons with the wheelers weighing from 3,000 to 3,600 pounds, went to the quartet entered by the Union Stockyards company, Swift & Co.'s entry took second prize.

In the four horse judging to wagon,

wheelers to weigh 4,000 pounds or over Morris & Co. carried away first prize. The Lafayette Stock Farm team of Crouch & Son took second prize and Swift & Co. third.

For gaited saddle horses, five gaited, ridden by owner and entries confined to the Union Stockyards, Symon Rappal took first prize, C. A. Dunbar second, and J. S. Agar third.

For combination harness and saddle horses, Edward Morris, Jr., took first prize.

HOGS.

FOR SALE—Thoroughbred Durocs Poland Chinas and large Yorkshire Swine, Rhode Island Red Chickens and eggs. WM. H. HARMAN, Wm. Thurmont, Md.

BARGAINS IN POLAND - CHINAS, BERKSHIRES AND CHESTER WHITES.

I now have a large stock of probably the best I ever owned. Cannot tell you all here, but I have Boars and Sows, all breeds, 3 to 6 months old mated not akin; sows bred and boars ready for service. Guernsey Calves and Registered Scotch Collie Puppies. Write for prices and free circular. This stock must go and will be sold. M. B. Turkeys, Barred and White P. Rocks, B. Leghorns and Beagle Dogs. P. F. HAMILTON, Cechranville, Pa.

FOR SALE—Some fine Yorkshire Pigs—no better stock in U. S. Just imported—new blood. A. A. BRADLEY, Frewsburg, N. Y.

MILCH GOATS.

MILCH GOATS—Information regarding this most profitable milk producing animal. Write G. H. Wickersham, 1242 St. Francis avenue, Wichita, Kansas.

POULTRY.

FOR SALE—Good honest stock eggs of Single Comb Brown Leghorns; finest strains. Cups and Blue Ribbon winners at Cumberland, Frostburg and Somerset. 600 fine large farm-raised birds for sale at reasonable prices.

Twenty-five extra choice Light Brahma cockerels for sale. Write me. HERMAN SHOCKEY, Sand Patch, Pa.

MISCELLANEOUS.

HORSES going blind Barry Co., Iowa City, Ia., can cure.

AUTOMOBILISTS ATTENTION—Fur-lined coat never worn, lined throughout with the best Australian mink, elegant Persian lamb collar, cost \$175. Will sell for \$35, also pair of cinnamon bear robes \$30 cost \$120. Write W. SCOTT, 121 East 27th St., New York.

TROTTER MARE for sale—a handsome, black, trotting mare, and beautiful stud colt, very fast. Second cousin to Dan Patch. Price \$200. P. J. WYAND, Cumberland, Md.

FOR SALE—Two litters Scotch Collie puppies, sired by the noted "Flying Comet" and "Liddle Boy," out of bitches bred in the purple; perfectly marked golden sable; strong, healthy, farm-raised stock. Prices from \$10 up. FRANK H. TAYLOR, Reedsville, Pa.

SEND 10c for a sample copy of the largest, newest, race-horse paper published. P. J. WYAND, Cumberland, Md.

FOR SALE—Pure bred Registered Holstein bull calf. Mostly white. Fine individual. Good pedigree. Write for pedigree, photograph and price. MADISON COOPER, 101 Court, Watertown, N. Y.

HOG CHOLERA CURED

SNODDY REMEDY CO., Alton, Ills.

Gentlemen: I have now given your remedy a hard test. My hogs were very sick and dying when I began the use of your remedy. A few of them were so near dead I could not get the medicine in them and these of course died. I have saved everything else that was able to take the treatment and my hogs are now in fine shape and are on full feed doing well. My sows that were near farrowing time had the cholera and I cured them. They have since farrowed strong, healthy pigs and the sows and pigs are doing fine. It is the only remedy that I have ever heard of that will absolutely cure hog cholera after the hogs are sick and especially save the pigs from the sows after going through the cholera as mine did. I have the utmost confidence in the remedy and recommend it to all hog raisers as a remedy that they can rely on in safety. I will answer any letters addressed to me from feeders who will enclose postage for reply.

With kindest regards, I am,

Snoddy's free book of instructions will explain the whole method of handling diseased herds and keeping hogs in thrift, will be sent free on request. Address

The Snoddy Remedy Co., Alton, Ill. Station "C"

For saddle horses ridden to walk, trot, and canter, by women, Thomas E. Wilson's entry took first prize, Martin H. Foss second, Dr. Jackson third, and Miss J. Thaburn fourth.

LIVE STOCK ASSOCIATION RE-ELECTS OLD OFFICIALS.

Show Ends and Was a Great Success—Children Romp and Sing on Final Day.

All officers of the International Live Stock Exposition association were re-elected at a meeting of the directors yesterday at the Saddle and Sirlain club. The roster includes W. E. Skinner, of Denver, president; Richard Gibson, of Delaware, Ontario, and A. J. Lovejoy, Roscoe, Ill., vice-presidents; Arthur G. Leonard, general manager Union Stock Yard and Transit company, treasurer; B. H. Heide, Chicago, secretary.

Affairs of the association were shown to be in excellent condition. The achievement of its purposes was demonstrated by the great success of this year's exhibition, which closed last night.

Ten thousand youngsters were the guests of the exposition during the day. The children had no respect for the reserved seat section and the boxes, with the result that many coupon holders had to be content to stand in the promenade around the ring. The children sang a number of popular songs.

SECRETARY WILSON FAVORS THE HOG.

The manufacturers of lard substitutes have been anxious to avoid the inspection of their production, but Secretary Wilson decided that they would have to submit to the same inspection for their products as for lard, which their production was manufactured to take the place of.

The manufacturers appealed to the attorney general, and Judge Fowler holds in his opinion that lard substitutes, which is a cooking compound made of one-fifth animal fat and four-fifths cotton seed oil, is within the definition of a meat food product and must be inspected under the meat inspection law.

This is a confirmation of Secretary Wilson's inspection rules, as he has required, the inspection of lard substitutes ever since the meat inspection law was passed.

SOME TRADE SIGNS.

A review of the foreign commerce of the country for the last five years shows fluctuation in exports, with decline rather than advance, and marked increase in imports. Comparison may be made on a basis of the latest official reports. These show the commerce of the ten months ended April 30. Compared with the preceding years the record stands thus:

	Imports.	Exports.
	(domestic).	(domestic).
1905....	\$1,020,873,178	\$1,465,825,110
1907....	1,195,399,276	1,587,918,677
1908....	1,018,192,236	1,610,075,635
1909....	1,071,194,560	1,402,561,949
1910....	1,318,264,373	1,457,932,418

The only fair inference from this record of both imports and exports is increase in domestic demand and in domestic purchasing power. The people are spending more money than ever before and the inference from that fact is that they have the money to spend. While it is probable that in individual cases draft has been made on reserves and savings, there is nothing in the statements of the banks and other institutions to support an argument that total expenditure has been in excess of income. While spending more than ever before, the people as a whole have increased their savings. The records of the last five years show the erection of thousands of new homes and the opening of hundreds of thousands of new accounts in savings banks. Complaint as we may of price increase and of high cost of living, neither appears to be a crushing burden.

Fifty-five per cent. of the imports of the current fiscal year represents materials contributing directly to our manufacturing interests. That combines the 37 per cent. of raw materials with the 18 per cent. of manufactures for further use in manufacturing. In the ten months of this year, compared with the same period of 1909, imports of hides and skins show a 50 per cent. increase. Imports of raw wool show a 40 per cent. increase. Chemicals, drugs and dyes increased about 14 per cent.; raw cotton nearly 33 per cent.; india rubber about 80 per cent., due in part to increased quantity and in part to increased price, and tin about 25 per cent. Imports of raw silk dropped from \$66,000,000 to \$56,000,000, partly a quantity decline and partly a price decline. Higher prices account for a \$7,000,000 in-

crease in sugar imports, and a decrease in quantity purchased accounts for a \$9,000,000 decline in the coffee account. Imports of diamonds and other gems nearly doubled, reaching \$41,181,215, a record mark. The imports of wines and liquors increased 20 per cent. in spite of increase in the rate of duty. The increase in rates on some lines of cotton goods did not prevent a 12 per cent. increase in imports of manufactured cotton.

BAD ROADS AND COST OF LIVING.

Bad country roads increase the cost of living. While this is not the chief cause, it is one that contributes a considerable amount of influence toward raising the prices of staple foods. More than 90 per cent. of our entire highway system is composed of poorly graded dirt roads, that are full of ruts, mud holes and sloughs a great portion of the year. During the breaking up of winter about a million miles of these roads are almost impassable for heavy loads, and to get the heavier farm produce to market requires several extra trips. The farmer's time is spent in marketing his crops. He cannot haul loads in wet weather, but must wait for fine days, thus losing valuable time when he should be in the fields. Farmers suffer, not only from bad roads when trying to market their produce, but also from the increased cost of hauling home heavier articles, such as phosphate, coal, mill feed, machinery, lumber, etc. Our dirt road system tends to diminish the farm's productive capacity, while at the same time adding to the cost of farm products in the city.

In view of the enormous loss and waste due to the present road conditions, it would seem that this great and wealthy nation should be able to devote much larger appropriations to scientific road building. The problem is not one that concerns the farmer's alone, but a matter that directly affects our manufacturing, commercial and transportation interests as well, since, in the long run, their prosperity depends on the economic condition of the farmers.

In the year 1909 the United States produced 20 per cent. of the world's wheat crop, 77 per cent. of the corn crop and 25 per cent. of the world's oats crop.

LET US TAN YOUR HIDE.

Cattle or Horse hide, Calf, Dog, Deer, or any kind of skin with hair or fur on. We make them soft, light, colorless, wind, moth and water proof, and make them into coats (for men or women) robes, rugs or gloves when so ordered. Your fur goods will cost you less than to buy them, and be worth more. Send three or more cow or horse hides in one shipment from anywhere east of Denver and we pay the freight both ways. Get our illustrated catalog which gives prices of tanning, taxidermy and head mounting. Also prices of fur goods, and big mounted game heads we sell.

The Crosby Frislan Fur Company, 571 Lyell Ave., Rochester, N. Y.



OUR FEATHERED FRIENDS

Conducted by George W. Miller.

PROFITS PER HEN.

The Government of Denmark in every possible way aims to increase production. Nothing seems to be left undone that will induce farmers to take better care of their farms and of their live stock. Then there are various organizations more or less free from government control which assist in the work. As an example, the Danish Co-operative Egg Export Association encourages the production of eggs by offering annual premiums for the best managed and best paying flocks of poultry and also for poultry breeding. The hens on one of these poultry farms last year averaged 158 eggs each. On another farm 158 eggs each, and the net profit was \$2.08 per hen. On another farm where the hens averaged 181 eggs each per annum, the net profit was only \$1.31 per hen. This was due to bad management on the part of the farmer, who had not given the care and attention to the details of the business that his more successful competitor had. One would naturally suppose that the hens producing the most eggs in the year would return the greatest profit, but they didn't in this case, thus showing the value of the work being done and the importance of the information obtained by a well defined premium plan. Might not some well regulated plan of giving prizes for the best managed flocks be an incentive to greater production among the farmers of our own country?

CURE FIR SCALY LEGS.

Mrs. M. S., a Minnesota subscriber, sends the following inquiry: "What is the best remedy for that condition of the fowls when the scales on the chanks become rough and filled underneath with a mealy substance?" Such fowls have what is known as scaly leg, a local trouble caused by the presence of minute parasites which work under the scales, making the mealy substance that you have discovered. They can be killed by washing the shanks twice a day, with 48 hours between, with ordinary kerosene and then wiping dry. Later applications of vaseline will assist the scales to return to their normal position.

POULTRY NOTES.

It is a mistake to breed from undersized, poorly developed fowls. The best prize winners are usually raised in incubators. The old hens become overfed more easily than pullets. The profits of the poultry business have never been better than during the past winter.

HOW TO TELL DRAKES FROM DUCKS.

One of our subscribers sends the following request: Please tell me how to distinguish the drakes from the ducks in my flock, so that I can

dispose of those which I do not need to keep." In almost all varieties of ducks the males are distinguished by two feathers which curl upward and toward the head on the highest point of the tail. The voice of the drake is shriller, while that of the duck is deeper and louder in all varieties.

SHORTAGE OF LUMBER MAKES FARM BUILDINGS MORE COSTLY.

Old Buildings Worth More Than When Built.—Pioneers in New Sections Confronted by Grave Problem.

The alarming waste of our forest resources by fire and careless lumbering has entailed great hardship upon the men who are settling new lands in the west. The cost of buildings necessary for sheltering animals and their feed has largely restricted the type of farming on new areas to grain raising. High prices of meats are partly due to this cause. On older farms well kept buildings are worth as much as when built, fifteen or twenty years ago.

One large ranch at Crawford, Kan., has actually advanced its inventory valuation three times on buildings. Farm buildings constitute from 20 to 40 per cent. of the total farm value on stock farms, hence newly established farmers are curtailing expenditures to what is absolutely necessary to house work, animals and feed. A barn holding 25 horses and their feed for one year costs now from \$2,000 upward.

The more progressive farmers are substituting mechanical tractors for

horses to cut down the cost of shelter and attendance. One attraction of the U. S. Land and Irrigation Exhibition, held at the Coliseum, Chicago, Ill., on November 19 to December 4, was an Oilpull tractor which has the power of 25 large horses and measures only 9 feet by 17 feet over all. It burns kerosene, the most highly concentrated fuel known, hence the building required to house the tractor and a year's fuel supply is less than one-tenth the size of a barn for 25 horses.

A TARIFF BLUNDER.

When the Aldrich-Payne tariff was on its passage, it seemed to escape the wonderful eagle eyes of those critics, LaFollette, Cummings, & Co., as well as everybody else in Congress, that in the dairy schedule a most serious blunder and inconsistency was being enacted. The tariff on butter is six cents a pound, while the rate on cream is five cents a gallon.

In 100 pounds of 40% cream there are 48½ pounds of butter, the duty on which, if entered as butter, would be \$2.88. But coming in as cream—about 12 gallons—the butter slips through with the payment of a duty of, say, 60 cents. The consequence is that cream is going into the United States from Canada by the wholesale to the very serious diminution of the exports in Canadian butter and cheese. Of course, the richer the cream in butterfat, the less duty the butter content pays, as the rate is five cents a gallon without regard to richness. The Canadian farmers were quick to see this loop hole, and have taken large advantage from it.

THE MILCH GOAT.

Very few people in the United States really know the full value of the milch goat. The Angora goat has long since proven its great value as a producer of mohair, and a land cleaner, but the milch goat will in the near future prove its greater value to the American people in the solving of the pure milk question.

When compared with the cow, the milch goat has many advantages, the milk of the goat contains fully twice the butter fat that the milk of the cow does. Goat's milk is much more easily digested, and is one of the very best foods for infants, and people having weak digestion, it is one of the most easily assimilated foods known.

It has been thoroughly demonstrated by one of the oldest milch goat breeders in the United States that goat's milk can be produced at about one-fourth the cost of cow's milk in the matter of feed. It can be produced with one-half the trouble as that of the cow. The flavor is better if the goat is kept in a clean and sanitary place, and the milk is much purer than cows, owing to the fact that the goat is practically immune from all infectious diseases common among cows, eliminating the much dreaded tuberculosis germs. It seems needless to say that the best breeds of milch goats are far superior to the cow when it comes to the production of high grade pure milk.

It has been a very hard matter to secure the best Swiss breeds of milch goats, as the Swiss people won't part with their best milkers, and those having good milking does in this country either refuse to sell them, or ask prices that are out of the reach of people with moderate means. However, the industry has received much encouragement in the fact that good Spanish and Mexican milch goat does have been imported, and when bred to the high grade Swiss bucks, the cross-bred stock are good milk producers, and are more reasonable in price. Good Spanish and Mexican does will produce about two quarts of milk a day, while the Swiss breeds will average about three quarts a day. In some cases an extra good Swiss doe will give as high as five quarts a day, and when it is taken into consideration that this milk will test fully 7½ per cent. butter fat, which is about double the butter fat that cow's milk contains, it can be readily seen why

Higher Cost of Living Does not Include Fence



Ten years ago it took 2 bushels of corn to buy 1 rod of fence. Today 1 bushel of corn will buy 2 rods of better fence.

Price Low—Quality Better Than Ever

Within ten years farm products have greatly advanced in market value while the price of woven wire fence has been reduced. These are the reasons: Newer and improved methods of digging the ore, shipping to the furnaces, melting into steel and making into finished products are in force. Ten years ago operations were on a small scale. Today the plan of operation is vast. The manufacturer is able to deliver the finished goods quickly, of better quality and at a lower price.

American fence is made better than ever. It is a thoroughly galvanized square mesh fence of weight, strength and durability. Large wires are used and the whole fabric is woven together with the American hinged joint (patented)—the most substantial and flexible union possible. Both wires are positively locked and firmly held against side slip and yet are free to act like a hinge in yielding to pressure, returning quickly to place without bending or injuring the metal.

Dealers Everywhere Stocks of American Fence are carried in every place where farm supplies are sold. The Fence is shipped to these points in carload lots, thereby securing the cheapest transportation, and the saving in freight thus made enables it to be sold at the lowest prices. Look for the American Fence dealer and get the substantial advantages he is enabled to offer. He is there to serve the purchaser in person, offer the variety of selection and save the buyer money in many ways.

FRANK BAACKES, Vice-President and General Sales Agent

American Steel & Wire Company

Chicago New York Denver San Francisco
Send for copy of "American Fence News," profusely illustrated, devoted to the interests of farmers and showing how fence may be employed to enhance the earning power of a farm. Furnished free upon application.

\$75 and \$100 is often paid for a Swiss goat.

The milk goat is a very dainty and clean animal in all its habits. They will refuse to lie down in a dirty place, if it is possible to secure a clean one, and while they will eat nearly every kind of vegetation that grows, they will absolutely refuse to eat anything that is soiled in the least, or has been trodden under the feet.

G. H. Wickersham, Wichita, Kan. It will pay you to correspond with Mr. Wickersham.—Ed. BloodedStock.

The fences and gates are the keys to the farm. Everybody forms an opinion of the man and his farm by them.

Milk producers who know it best concede that alfalfa is an invaluable feed in the dairy, closely akin to wheat bran in results, and usually much less expensive. In the average small town or city there is about one cow for every ten or fifteen people. Therefore, in a town of one thousand population, there will probably be seventy-five to one hundred cows. If alfalfa will increase the quantity of their milk and butterfat, giving a product at a lower cost than the concentrated foods, it should be more used. But as yet it is not generally used, because it is not understood and appreciated.—From Coburn's "The Book of Alfalfa."

THESE SICKLY-LOOKING CHICKS NOT FED OUR WAY

They wouldn't be wilted, forlorn and droopy as are these poor little fellows. What's the matter? Likely some one has been feeding a lot of table scraps, or sour bread, or some other indigestible mixture that is fermenting in their stomachs. Tomorrow the owner will find eight or ten dead, and wonder: "What killed my chicks?" Chicks are babies and must have baby food. That's why Puritan Chick Food is so successful in rearing chicks, keeping them well and holding down the death rate. It just "fits" the interior mechanism of the digestive organs of a chick.

Puritan Chick Food (The Safe Kind)

has a delightful taste and odor to a little chick, because it is compounded of those very pure, wholesome and sweet elements that naturally attract it. Your little "puff-balls" will make things fly scratching; they are always happy and busy, when fed on it. Some of the largest poultry plants use Puritan Chick Food. It pays them. It will pay you, no matter how small your flock. It is foresight, wisdom, economy and profit, for you always to keep it on hand. It's true life insurance for your chicks, all other things being equal. We guarantee it so, and refund money if you're not satisfied. No fussing about it, either—your word is final. Puritan Chick Food is put up in 5-lb. boxes for 25c; 25-lb. bags \$1.00; 50-lb. bags \$1.75; 100-lb. bags \$3.25. Ask your dealer for it. If he hasn't it we'll supply you. Booklet free. Write now for it.



Puritan-American Poultry Food Mfg. Co.,
Bound Brook New Jersey



Belle Brand Crushed Oyster Shells

Make Poultry PAY!

Tests show where these shells have been used—duration of test 22 days—number of eggs, 23; weight of eggs, 1449.6 grammes. Where Sharp Grits were fed—test 22 days—number of eggs, 6; weight of eggs, 237.6 grammes. This is convincing argument why every poultry house or yard should have them. They'll make hens lay an egg a day, with firm, hard shell—less liable to break in shipment.

Belle Brand Crushed Oyster Shells supply Carbonate of Lime in natural form and acts as a grit, making them superior to any other poultry food on the market. Write for Free Catalogue to LOUIS GREBB, BALTIMORE, MD.

FRUITS AND VEGETABLES

SOILS AND SEEDS.

Corn Shrinkage.

Corn shrinks much more from the time it is husked in November until spring. To many it looks like a great loss to market the crop as it comes from the field. This year it is probable that the shrinkage will be somewhat greater because of early frost. A reduction of 20 per cent. is perhaps quite low for this season. If the farmer has 1,000 bushels to spare this fall, this will be reduced to approximately 800 bushels by spring. The loss due to vermin is greater with corn than with cereals, especially the loss due to rodents. Corn lies loosely in the crib and rats and mice easily find access. The husks of snapped corn afford good building material for nests. The corn is also injured in color by bleaching.

The Angomoi grain moth is the most serious insect pest injuring corn in the ear. The extent of the damage is, however, not great unless the corn is kept in very dry room. Corn is never injured by insects to the same extent as wheat.

When to Sell.

Because of the great shrinkage in corn early sale is many times the most profitable. Since 1,000 bushels will shrink to about 800 bushels it follows that 50 cents per bushel in November is as good as 60 in the spring, if shrinkage alone be taken into account.

Potato Shrinkage.

The East being a great potato section, the question naturally arises whether it be best to harvest from the field or store them for some time. If, as will be true this year, many potatoes are not ripe, it will be a good plan to market them from the field. Immature potatoes will not keep well and are likely to rot.

It is also true that the facilities of the ordinary grower are not such as to make storage the most practicable. Cellar space is so often limited and not the best. If it be very dry there is so much loss of moisture, they will shrivel up. There is also a tendency to cause growth if there is moisture, light and warmth in the early spring.

Storing in the open air under a covering of earth is practicable. Many times the tubers are frozen because of a too thin covering. Even an extra covering of straw or manure is insufficient to prevent freezing. Then again, if left too late in the spring they are apt to heat and rot.

FARM NEWS, FAR AND NEAR.

The price of milk in Chicago may be nine cents per quart after November 1.

Of 2,816,718,960 eggs exported from Russia last year, Great Britain took 725,333,760.

American consular agents report that the high cost of living has become a serious problem in Italy.

In many parts of Ontario heavy winds recently shook down much of the apple crop.

Following the getting of September strawberries, people in several parts of Canada have picked ripe raspber-

ries within the past few days.

No more cattle or pigs are to be shown at the Mount Holly, N. J., fair because the space they used to occupy is wanted for showing automobiles.

Illinois is the leading State in the United States in the value of its field crops, Texas second, Iowa third, Ohio fourth, and Missouri fifth.

H. T. Nutt has just finished sowing 1,000 acres of winter wheat in Weld county, Colorado, which is probably the largest acreage planted by any one person in northern Colorado.

As a memorial for her son, Mrs. J. B. Jolly, of Grayville, Ill., has given to the Southern Illinois Episcopal Conference her farm of 340 acres for an orphanage.

The 1910 corn and cotton crop of Georgia is valued at \$200,000,000. The cotton crop alone is valued at \$150,000,000 or about one-fifth the value of the entire crop of the cotton belt.

Four of the cows of Wm. Olmstead, Stamford, Conn., died from eating dynamite which they had gotten at by pushing a heavy stone off a feed box behind the barn.

Irish experts have invented a process by which dairy waste in combination with coarsely ground phosphate of lime and yeast makes a fertilizer which will return to the soil all of the phosphate removed by milk.

A horse a few days ago got into a deep ditch beside a road near Perth, Ont. It went deep into the soft muck and ropes and chains had to be attached to it before it could be hauled out.

By rushing forty volunteer fire fighters overland in automobiles when a Northern Pacific freight train started a blaze in a grain field at Wesley Lloyd's ranch near Waitsburg, Ore., an expensive fire was prevented.

By having fires under sheet iron tanks containing straw sprinkled with water, California fruit growers generate a large amount of steam, thereby creating a fog which saves their crops from frost.

More than 10,000 bushels, 34 carloads, of sunflower seed were raised in Hamilton county, Ill., last year. The crop brought \$3.50 per bushel, a total of \$35,000. The seeds are used for medical purposes and for bird and stock food.

"Nothing so endures as a truly spoken word."—Carlyle.

"FIELD AND FARM" NOTES.

Maud Muller on a summer day concluded haying didn't pay, so she hung out a sign of tin—"Some Summer Boarders Taken In." They flocked up through the dust and smudge. She made enough to land a judge.

That jelly can be made from fruit juices without adding sugar has been demonstrated by a number of investigators, but it is not as clear nor palatable as when sugar is used, and it is more costly. The smaller the amount of sugar used the longer the period of boiling required and the darker the color of the product, but the flavor of the fruit is more pronounced.

Splinters.—When a splinter has been driven deep into the hand, it can be extracted without pain by steam. Nearly fill a wide-mouthed bottle with hot water, the injury placed over the mouth of the bottle and press tightly. The suction will draw the flesh down, and in a minute or two the steam will extricate the splinter and the inflammation will disappear. For a bad splinter in the foot apply a slice of ham fat, and change once or twice if necessary.

Early superstitions have charged the toad with about all the vicious qualities possible for one creature to possess. Some of these traditions, however, are of such a nature as to render the toad an individual to be avoided rather than to be sought and killed. But in spite of his ugliness the little animal is about as harmless as any we can find in our woods and fields, and as a destroyer of insects his value has been established beyond a doubt. Ninety-eight per cent. of the food of the toad consists of animal matter, and of this the greater part is injurious insects.

Have a place for odds and ends and keep them there. The absence of the nut or bolt you don't need today may occasion a trip to town tomorrow.

Americans may be having a struggle to make both ends meet in the matter of household economy, but there is no clearly defined sign of it in the record of our trade. In all their bearings the figures indicate work and wages and money with which to buy what is wanted as well as what is needed.

BLOODED STOCK for December.

THE TEN COMMANDMENTS OF GOOD FARMING.

By W. C. Palmer,
North Dakota Experiment-Station.

- I. Thou shalt plow deep.
Lest rain get into soil easily.
Lest in big rain without running off.
Provides more feeding space for plant roots.
- More plant food made available.
- II. Thou shalt keep the surface soil loose.
Keeps soil moisture from evaporating.
Lest rain get into soil easily.
More plant food made available, due to more moisture.
Harrow the grain after it is up two inches, or use weeder.
- III. Thou shalt cultivate level.
Level soil has the least soil exposed to the air.
More evaporation from a ridged soil.
Level soil will take in rainfall much faster than ridged soil.
On ridged soil the rain runs off through the furrows.
The soil in the ridges dries out so that the plant has less moist surface soil to draw on for food and moisture.
Ridging the soil is a most effective way for getting rid of both the moisture in the soil and of rainfall.
- IV. Thou shalt summer fallow in dry farming, when rainfall is less than 15 inches.
The summer fallow saves up two years' rain for one crop.
The summer fallow kills weeds and plant diseases.
The summer fallow should be cultivated.
When rainfall is over 15 inches corn will be as good a preparation for a crop as the bare fallow.
- V. Thou shalt add organic matter to the soil.
Holds moisture and plant food.
Improves mechanical condition of the soil.
Helps make plant food available.
Lessens drifting and blowing of the soil.
Lessens washing of soil.
Stable manure is the best form.
Plow weeds under when green.
- VI. Thou shalt keep down the weeds.
Weeds use up moisture.
Weeds use up plant food.
Weeds crowd the plants.
Weeds shade the crops.
Weeds make it difficult for the plant to grow.
Weeds make it hard to work the land properly.
- VII. Thou shalt grow early maturing crops.
Growing conditions best in early summer.
Winter grains better than spring grains.
- VIII. Thou shalt grow corn every three to five years.
The cultivation given corn saves moisture.
The cultivation given corn kills weeds.
The cultivation given corn kills plant diseases.
Corn best preparation for a grain crop.
Corn produces fine stock food, both grain and fodder.
Corn produces more per acre than

other crops.
Do not hill up the corn, as this wastes the moisture.

IX. Thou shalt grow clover, or alfalfa every few years.
Clover and alfalfa add fertility to the soil.
Clover and alfalfa add organic matter to the soil.
Clover and alfalfa kill weeds and plant diseases.
Clover and alfalfa produce a most valuable hay.
Clover and alfalfa produce very valuable seed crops.

X. Thou shalt keep stock.
The most profitable way of marketing grain and fodder is through stock.
They produce manure which is very necessary to the soil.
They bring about prosperity.
Who obeys these commandments shall reap abundant crops. He who violates them shall be punished by decrease in yield in proportion to the transgression.

IMPATIENT FOR RESULTS.

One of the most interesting of a series of lectures on a chautauqua platform this summer was that of a description of the life and work of Luther Burbank. The speaker related how careful the great plant breeder was about putting his new creations on the market. He had held some back twenty-five years in order to test them thoroughly. He wanted to be sure of results. Only one of his plant improvements was sent out too soon—that of the sunberry. The exploiter of this plant, which was advertised as the wonderberry, did Mr. Burbank a great injustice. He over-advertised it and the people expected too much of the new berry. The famous plant wizard is not going to make another such mistake. Other breeders are at work trying to create new varieties of fruits and flowers and the public naturally becomes acquainted with the fact. The majority of the people are too liable to criticize and jump to the conclusion that the experiments are failures if results are not forthcoming in a very short time. It takes years to create and thoroughly test anything that is new in the plant world. A scientist can afford to wait and prove all things even though the public become impatient. They know that it is useless to send further a new species of plant before its characteristics are perfected and thoroughly tested. If we wait till the plant breeder is confident of success we will have a chance to praise rather than to criticize. Let us be patient and accept the good things that are coming to

MANATEE FLORIDA

West Coast Where Fortunes Are Made

GROWING
ORANGES, GRAPEFRUIT, VEGETABLES

Offers biggest returns for the smallest investment. Yields \$500 to \$1500 per acre net. Two and three crops per year—highest prices secured in the best markets of the East and North—low freight rates and quick transportation via the S. A. L. Ry.

LAND IS CHEAP NOW
but prices are advancing—thousands of new settlers are taking advantage of the exceptional opportunities. Ideal, healthy climate, year round—plenty of high-class labor—abundant supply of pure water.

MAKE YOUR PLANS TO-DAY
to own a small farm in this "Garden Spot." Perfect independence is assured.

Illustrative booklet describing this wonderful country in detail mailed free on request. Address:
J. W. WHITE, GENL. INDUSTRIAL AGT.
SEABOARD AIR LINE RAILWAY,
NORFOLK, VA.
DEPT.

us even if it takes considerable time to prove all things.

WHEAT FLOUR TOPS THE LIST IN FOOD VALUES.

The following table was compiled by the United States Government and issued as Farmers' Bulletin No. 142. Note the great difference in food value in ten cents worth of different articles of diet—and see how ten cents worth of wheat flour has twenty times the food value of ten cents worth of eggs. The usual way of comparison is by the pound, but the better way is to compare the same money value.

ARTICLES.

Eggs	385
Beef, sirloin	410
Mutton, leg	445
Milk	1030
Pork, loin	1035
Cheese	1185
Butter	1305
Wheat Breakfast Food	1489
Rice	2025
Potatoes	2950
Beans, dried	3040
WHEAT FLOUR	6540

Energy, Muscle and Strength-Giving Qualities. One pound of flour, costing 2½ to 3 cents, will go as far as two pounds of meat, costing 15 to 20 cents per pound.

Elkhart Buggies
are the best made, best grade and easiest riding buggies on earth for the money.

FOR THIRTY-SEVEN YEARS
we have been selling direct and are **The Largest Manufacturers in the World** selling to the consumer exclusively.

We ship for examination and approval, guaranteeing side delivery, and also to save you money. If you are not satisfied as to style, quality and price you are nothing out.

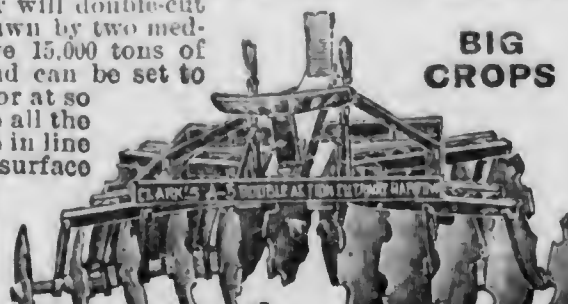
May We Send You Our Large Catalogue?
Elkhart Carriage & Harness Mfg. Co.
Elkhart, - - - Indiana

Save **\$30**



CLARK'S
DOUBLE ACTION "CUTAWAY" HARROW
WITH JOINTED POLE. It is made especially for every day work. It will increase your crop 25 to 50 per cent. This machine will cut from 25 to 30 acres, or will double-cut 15 acres in a day. It is drawn by two medium horses. It will move 15,000 tons of earth one foot in a day, and can be set to move the earth but little, or at so great an angle as to move all the earth one foot. Runs true in line of draft and keeps the surface true. All other disk harrows have to run in half lap. The Jointed Pole Takes All the Weight Off the Horses' Necks, and keeps their heels away from the disks. We make 120 sizes and styles of Disk Harrows. Every machine fully warranted. Send for FREE Booklet with full particulars.

CUTAWAY HARROW COMPANY,
Main St., HIGGANSUM, CONN.



CLASSIFIED ADVERTISEMENTS

Two cents per word each insertion. Each letter and figure counts as one word. You can get anything you want. Sell anything you have or exchange for something you want. Cash with copy.

MAIL ORDER INSTRUCTIONS.—If you want to go into the MAIL ORDER BUSINESS you can get complete instructions for a few hours' work. Write for free Booklet. Tells how. Address M. O., Editor Blooded Stock, Oxford, Pa.

FOR THE HOME.

REMNANT LIST.—Pottery, Glass and Enamelware thirds. Stoneware \$1 per barrel from Pittsburgh. Write us. Swazey & Co., Portland, Me.

ADJUSTABLE WINDOW REFRIGERATOR.—Iceless. All metal. Put up in five minutes, yet strong and safe. Sanitary. Bishop-DeWaters Co., 203 Pine St., St. Louis, Mo.

RECIPE FOR GENUINE MEXICAN Chili Con Carne as made by natives. Delicious, economical winter dish. Ten cents. P. O. Box 293, Chicago, Ill.

E-Z SUCTION CLEANER.—\$7.50. Lightest, simplest, handiest. Satisfaction or money back. Duryea, Reading, Pa.

MAGIC CLEANER.—Make it yourself, costs only a few cents, removes spots, stains, grease, etc., from garments and furniture. Cannot injure the choicest fabric. Saves dollars. No home will be without it after first trial. Send 10 cents for receipt. Address Mrs. Coventry, 5971 Maple Ave., St. Louis, Mo.

MAKE YOUR OWN FURNITURE.—Write, Home Furniture Pattern Co., 404 Potter Bldg., Birmingham, Ala.

ELECTRIC WASHING MACHINE.—The "Domestic" Washes anything washable quickly, clean. Without injury at trifling cost. Cash or installments. Send for circular. Domestic Equipment Co., 55 State St., Chicago.

REAL ESTATE AND FARM LANDS.

PILGRIM'S MONUMENT, CAPE COD.—Near this spot I have a few house lots, all surveyed and properly recorded with Registry of Deeds. Would you like to own one of these fine lots on the Atlantic Coast? Sold reasonable and on easy terms. I also have a hen farm near here. Write for information. Lorenzo J. Peabody, Boston, Mass.

FOR SALE.—Grain, fruit, alfalfa, dairy, stock and poultry farms. Health, climate, society, schools, churches, and transportation ideal. Crops sure; prices right; terms to suit; postal brings particulars. Write Brown & Fenwick, Perryville, Mo.

FOR SALE.—\$4,000 nine-room dwelling, outhouse, barn and twelve acres highly cultivated land on beautiful drive 4 miles from city of Augusta, thickly populated neighborhood, schools and churches, nearly transportation facilities, lovely climate. Address J. H. Norrell, 1402 Gwinnett St., Augusta, Ga.

NEW COUNTRY OPENED by railroads. Greatest general farming district known in Texas; fine climate. Where Frisco and Santa Fe Railroads meet. Write for information. Richey-DeFreest Land Co., Wheat Bldg., Ft. Worth, Texas.

SOUTH GEORGIA bottom lands. Pecans, fruit, poultry, vegetables. Only \$18.50 an acre. \$2.50 an acre cash and \$1.00 per month. 5 acres or more. Title perfect. No interest or taxes. Write Parker & Parker, No. 42 Cleveland, Ohio.

A PROFITABLE INVESTMENT.—80 acres timber and grazing land for sale cheap; 5 miles from Taneyville, Mo.; will advance rapidly in value. Price, \$600; \$100 down, balance \$10 per month. O. J. Kunz, 3444 Alaska St., St. Louis, Mo.

640 ACRE WYOMING stock ranch, 60 acres alfalfa, well improved, gravity water works, \$12,500. Would take stock merchandise, preferably western state equal or less value. W. E. Bramel, owner, Sundance, Wyoming.

160 ACRES WELL LOCATED, 100 acres Elegant Wheat Land. Price, 1800.00. Owner must have \$880.00 cash; \$320.00 can run from one to five years. Will take automobile if good for \$600.00. Kingery Realty Co., Kingery, Kansas.

DON'T PAY RENT. Own a farm. Particulars free. Write John McGehee, 105 West Main Street, Urbana, Ill.

COME TO THE GREAT Artesian Belt in Texas, where strawberries are ripe at Christmas, where we grow figs, dates, oranges, lemons, olives, grape fruit, and many other semi-tropical fruits, alfalfa, sugar cane, and two good corn crops each year. We will pay good commission to an agent in every county. Land sold on your own terms. Write for free transportation offer. Security Title and Guarantee Company, 201 E. Houston St., San Antonio, Texas.

FARM HOMES in Sunny South at fraction usual cost through Co-operative Land Clubs. Colony of 600 successfully located. New club forming. Desirable members invited. Edw. Miller, Ruskin, Fla.

RARE COINS AND STAMPS.

\$7.75 PAID FOR RARE DATE 1853 Quarters. \$20.00 for Half-Dollar. We pay a cash premium on hundreds of coins. Keep all money coined before 1880, and send 10 cents at once for our New Illustrated Coin Value Book; size 4x7. It may mean your fortune. C. P. Clarke Co., Coin Dealers, Dept. 14, Le Roy, N. Y.

COINS AND STAMPS WANTED.—Even commonest kinds that other dealers don't buy. Booklet R 4 mailed free. Royal Money and Stamp Co., 150 Nassau, New York.

250 DIFFERENT STAMPS.—500 hinges and album, 25c. Wright, 35 Norton St., Dorchester, Mass.

\$2.00 WORTH OF RARE stamps for 25c. Palmer Stamp Co., Box 134 Thorndike, Mass.

STAMPS CATALOGING \$2.50 mounted and priced, postpaid, 25 cents. J. E. Grafton, Newark, Ohio.

STAMP CATALOGUE: 100 different foreign stamps, 8c. Powell Company, Storm Lake, Iowa.

STAMPS, 200 ALL DIFFERENT, 10c; 30 Italy 10c; 30 Sweden 10c; 20 Japan 10c. F. L. Toupal Co., Chicago Heights, Ill.

SALE OR EXCHANGE.

WANTED TO EXCHANGE portable roller rink for automobile, 50x80 waterproof tent, 40x70 hard maple floor, 150 pair skates, etc. Rink now in operation, in excellent condition. Will invoice \$1,200.00. Hammer Bros., Lamoni, Iowa.

STATIONARY SAW MILL with novelty works and established trade. What have you to offer? Reason, other business. Box 302 Dresden, Ohio.

4-PASSENGER STEAM AUTOMOBILE, in good condition, \$200.00, or exchange for upright piano. Vullance Co., Elkhart, Ind.

MAKE OFFER for four unit Splitdorf Coil, good condition. Will trade for small motor. T. H. Lawrence, Ogdensburg, N. Y.

EXCHANGE billiard table and accessories for good motorcycle. Write for particulars. Address M. Rogers, 515 North 64th Ave., Oak Park, Ill.

DEMOISELLE AEROPLANE COMPLETE; want roadster automobile. Slingerland, Howe Cave, N. Y.

WILL EXCHANGE my Peloubet Reed Pipe Organ, cost \$1,000, for automobile. W. J. Bailey, Madisonville, Ky.

EXCHANGE 6 CYLINDER CRANK Shaft for 2 H. P. marine engine or 12 inch engine lathe. Nicholas Stromer, Gillett, Wis.

MACHINERY AND TOOLS FOR SALE.

FOR SALE.—10 H. P. Mason steam engine, \$300.00; 10 H. P. Whitney steam engine, \$350.00; 4 1/2 H. P. Locomobile steam engine, \$200.00; 10 H. P. Lane Steam engine, \$150.00. All kinds steam supplies. R. Roth, 1423 North Ave., Bridgeport, Conn.

FOR SALE.—One 1 H. P. Wagner, 110 Volt, alternating current, sixty cycle, 1750 Rev., good as new, cheap. Machinery Sales Co., 107 East Woodbridge St., Detroit, Mich.

FOR SALE.—A good 7 1/2 Callahan vertical boring mill with one swivel head on cast automatic feeds; \$550.00 cash. Full line of other machine tools. Western Machinery Co., 6th and Baymiller Sts., Cincinnati, Ohio.

1 1/2 H. P. 2 CYCLE GASOLINE ENGINE, for pump and small machinery. Price \$30.00. J. H. Parden, Harrison, Ark.

TWO CYCLE TWO CYLINDER, 4x3 1/2, Marine and stationary gasoline engines, 10-12 H. P. at \$84.00, including coil, carburetor, etc. Castings and drawings for sale of same. Richards Iron Works, Manitowish, Wis.

TWO 2 1/2 H. P. and three 4 H. P. Buckeye gasoline engines at cost to move immediately. The Osborne & Sexton Machinery Co., Columbus, Ohio.

TELEGRAPHY.

LEARN TELEGRAPHY THOROUGHLY, quickly. Thousands of operators wanted. Endorsed by railway officials. Main line wire. Wireless station. Catalog free. Eastern Telegraph School, Box 50, Lebanon, Pa.

TELEGRAPHY TAUGHT in the shortest possible time. The Omnigraph Automatic Transmitter combined with standard key and sounder. Sends you telegraph messages at any speed, just as an expert operator would. Five styles, \$2 up; circular free. Omnigraph Mfg. Co., 41 G. Cortlandt St., New York.

\$3,000.00—REPRESENTATIVES WANTED.—We want one reliable man to represent us, after thoroughly learning our business through correspondence course of instruction. Location anywhere. A man of fair ability may make \$3,000 to \$5,000 yearly. Co-operation the watchword. We furnish free plans and advertising matter. We tell you in our large Instruction Book how to become our representative and make big money without leaving home. It tells you of General Brokerage, Realty, Investment and Real Estate Advertising. Large Booklet and Instruction Blank free. Ask for them. Have a business of your own without capital. Write today.

MUTUAL REALTY CO.
B. S. 150 Nassau St. New York City.

BLOODED STOCK for December.

MISCELLANEOUS.

CLERKS, TINNERS, MACHINISTS, Painters, Draftsmen, "Lay out," your own letters and figure; our E-Z System book. Teaches you in thirty minutes, not a stencil system. Price, \$2.00 prepaid. Southwestern School of Letters, Waco, Texas.

3,000 FORMULAS, RECIPES and trade secrets. Our 270 page cloth bound volume only 40c. prepaid. Satisfaction guaranteed or money refunded. Special offer. Mention Blooded Stock, and we will include free our complete \$1.00 Instructions to Renew Old Dry Batteries. Weissgerber, 3453 N. Hamilton, Chicago.

BUILD YOUR OWN Storage Battery. Comrad Storage Battery Parts are easily assembled by any one. Has steel case. Heavy hard rubber jar, best of grids and plates, patented vent and non-corrosive binding posts. Absolutely guaranteed. Useful for Lighting and Ignition work, as well as for Wireless Stations. Quantity contracts solicited. Circular and prices on application. A. M. Supply Co., 225 Dearborn St., Chicago.

MECHANICS, STUDENTS, MERCHANTS, Clerks, everybody. Does your memory sometimes fail you? Do you forget important things, which you wish to remember? My book "Don't Forget It" will enable you to recall anything you wish to remember. Over 100 pages. Cloth bound, 25 cents. Leather, 50 cents. A. P. Morsley, P. O. Box 172, Allentown, Pa.

MOTORCYCLES.
K. & B. TWO-SPEED conversion set, used less than 25 miles, will fit and belt-drive motor motorcycle. \$40.00, cost \$60.00. Set of special rear stays for use with above to fit Merkel, \$10.00, cost \$20.00. New M-M side car complete, \$50.00. 1909 M-M Magneto Special Motorcycle, excellent order, \$100. Callwell's Motorcycle Agency, 10 Golden St., Newburg, N. Y.

MOTORCYCLES.—Enormous variety American and foreign makes—Marshes, Indians, Wing Standards, low as \$25.00. All guaranteed. Immediate delivery. Send for large illustrated bargain bulletin. New York Motor Car & Cycle Exchange, 215 West 125th Street, New York City.

JUST PRINTED, ILLUSTRATED CATALOGUE of used motorcycles, all prices reduced this winter. Largest stock for your selection in the South. Enclose three cents stamps. Don't hesitate to write. Rubel Co., Louisville, Ky.

40 SECOND-HAND MOTORCYCLES, all makes, \$35 up. Each one sold with our full value guarantee. Tiger Cycle Works Co., 782 8th Ave., New York City.

FOR SALE.—Nickel-plated spokes and nipples for motorcycles at low prices. R. Roth, 1423 North Ave., Bridgeport, Conn.

AUTOMOBILES.

FOR SALE.—7-Passenger Model G White Steamer, reupholstered, repainted, new top, electric lighted, speedometer, gas tank, every equipment. Will sell cheap. Apply 531 South Peoria St., Chicago, Ill.

AUTOMOBILES.—All models, lowest prices for immediate delivery—Buicks, Fords, Maxwells, Oldsmobiles, Cadillacs, Packards, and hundreds others. Two-passenger Runabouts, \$95.00; three-passenger Roadsters, \$190.00; four-passenger Roadsters, \$250.00; five-passenger cars, \$295.00. All guaranteed. 5 per cent. discount and \$10.00 electric horn free. Write now for latest illustrated bulletin. New York Motor Car & Cycle Exchange, 215 West 125th St., New York City.

AUTOMOBILE INSTRUCTION, four weeks' course covering shop and road work—provision for out-of-town men. Send for booklet P. M. West Side Y. M. C. A., Automobile School, 313 West 57th St., New York City.

ELECTRIC AUTOMOBILES SACRIFICED, unheard-of offer. Any standard make. Wood's, Baker, National, Columbia, etc. Any of these high-grade machines we will sell for \$100. Heery Machine and Battery Works, 916 E. 43d St., Chicago.

LARGE STOCK of used automobiles, must be sold this winter at very low prices. Catalogue for stamp. Rubel Co., Louisville, Ky.

MANUFACTURING MACHINERY.
DO YOU WANT to build small gasoline engines? We want to get in touch with some one who is, or can prepare to build two sizes of gasoline engines; largest weighing 800 pounds. Have complete patterns and drawings; splendid proposition to keep your factory busy. The Cyclone Drill Co., Orrville, O.

WE ARE PIONEERS in the manufacturing of Sheet Metal Goods, Pressed Steel Products, Metal Stamping, Dies, Tools, Models, Patterns, Novelties and Specialties. We manufacture and find a market for any good patented article. Chicago Model Supply Co., 1638 Clybourn Ave., Chicago.

IRON, BRASS AND ALUMINUM CASTINGS.—Metal Specialties. Patterns, Models. Polishing, Plating and Japanning. North Chicago Tool Works, North Chicago, Ill.

INVENTORS.—We will develop your inventions, make your models, dies, tools; also manufacture anything. Geo. Schwarz & Co., 123 Liberty, New York.

BLOODED STOCK for December.



No Danger From Fire When You Build With Concrete

A fire can wipe out in an hour what it may have taken a life-time to build.

Did you ever drop a lighted lantern in the barn or the wagon shed? You know how quickly the flames begin to dance about the floor and reach the wall. Every farmer has had this experience, and many have been sorry over the consequences.

You will never worry about fires if your barn or shed is built of concrete made with

ATLAS Portland Cement makes The Best CONCRETE

ATLAS is the best cement manufactured. It is made of genuine Portland Cement Rock. It contains no furnace slag.

ATLAS has the greatest sale because of its uniform quality and absolute purity. There is only one quality of ATLAS manufactured—the best that can be made and the same for everybody.

The United States Government ordered 4,500,000 barrels of ATLAS for the Panama Canal. You get the same quality as the Government if you order only one bag.

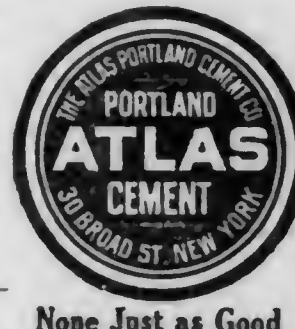
Our Free Cement Book

"Concrete Construction About the Home and on the Farm" illustrates hundreds of different ways of using concrete. It will show you how to make and place the concrete mixture in the best and most economical way. It gives complete instructions and illustrates them with photographs, diagrams and plans. Send for the book now.

Ask your dealer for ATLAS. If he cannot supply you, write to

The ATLAS Portland Cement Co.
Dept. 127 30 Broad St. New York

Daily Productive capacity over 50,000 barrels—the largest in the world



None Just as Good

OUGHT TO BE WORTH WHILE.

Pittsburg, Pa., August. Arrangements are being made here for a Mammoth Land Show which is to be held here October 17th to 29th.

The object of the exposition is to provide information to the farmer, the homeseeker and investor regarding land openings and developments in all sections of the country, and to show samples of the mineral, agricultural, horticultural, and botanical products of the soil and to teach the students and the laymen educational facts concerning land reclamation and irrigation.

The exhibits will include those of the United States government, state exhibits, boards of trade, chambers of commerce, commercial bodies, land and irrigation companies and state exhibits from all parts.

MIXED CATSUP.

Catsup days are also very dear and there are few households to which this is not a welcome accompaniment to meat dishes. For a good mixed catsup take four dozen cucumbers, two dozen onions, four dozen large green tomatoes, four green peppers, one pint of salt, one-and-a-half pounds of brown sugar, one gallon of vinegar, one ounce of mace, one ounce of turmeric, one ounce of white pepper, one ounce of celery seed, one slice of horse radish. Slice thin the cucum-

bers, onions, green tomatoes and peppers. Sprinkle with the salt, let stand over night and drain in the morning. Put in a kettle with other ingredients, boil one hour and put in jars. Add two tablespoonfuls of cold vinegar to each jar.

ALFALFA EXPERIENCES WANTED.

We would like to open our columns for a series of communications in regard to experiences in the growing of alfalfa. We are sure many more farmers would sow this valuable forage crop that have done so in the past if they were convinced of its practicability as a meadow crop. Will those of our readers who have experimented with alfalfa give us a leaf out of their experience so that we may publish the same for the benefit of their neighbors?

The kind to sow, when to sow, preparation of seed bed, chance of winter killing, the kind of soil best adapted to its culture, number of crops harvested and yield per acre, or any other facts connected with its successful growth, all of which will be of value to prospective growers. It is out of the order of fads and we think that information along the lines indicated will be of unusual interest. Let us hear from a goodly number of alfalfa growers

WHY A COUNTRY ROAD UNIT?

A stretch of road of the utmost importance to a locality may be of little concern to a particular township involved (the people using another road), and hence there is no opportunity to have the entire stretch of the road improved as it should be.

And, we conclude that no system of roads that will answer present needs can be built under township units, because they are too small to carry on the work.

Moreover, the cost would fall wholly on the township, whereas the center toward which the road goes is as much benefited, but may be in a different township.

County control of the main roads would be better; the law could let each county vote for or against county control.

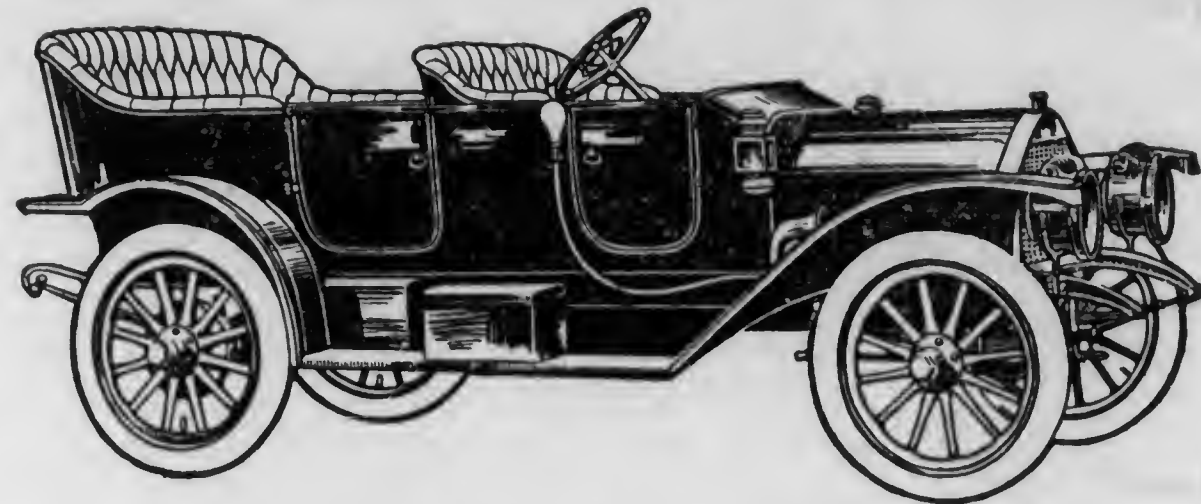
A LITTLE FUN.

If a fellow has a taking way he will not find it necessary to ask a girl for a kiss.

Even the dressmaker admits that some women are more easily ruffled than others.

Little Bo-Peep lost her sheep, but no doubt she was still able to make sheep's eyes.

The struggling author who cannot sell his manuscripts, needs to have great faith in the sweet bay and buy.



Enger "40" Torpedo--\$2150

Modern Methods Reduce Cost

The Enger "40" Was Impossible Before
Enger Conditions Were Created

MODERN METHODS— VS. MANUFACTURING COST

Every great reduction in the cost of a manufactured product is largely due to the introduction of modern organization—and modern machinery.

A system built on these modern principles is responsible for the Enger "40."

Such a car could not be built under any other system.

A new factory—a new organization—a new car—plenty of capital—and the world's automobile knowledge and experience—brought out the Enger "40."

These ideal conditions are responsible for the Enger "40"—which has set a new basis for car value.

ANY CAR WOULD BE BETTER IF ENGER-BUILT

The Enger Motor Car Company realized they would have to build a good car to win—with so many other makers in the field.

That is why Enger manufacturing conditions were established.

These conditions made these specifications possible in a \$2000 car—40 horsepower—116 inch wheel base—big wheels—and a strong, roomy, but light weight body.

There are six Enger models—the Torpedo 40—the most beautiful body design of this popular type—the five-passenger touring car and roadster are most luxurious in room and comfort.

They are in a class by themselves. All 40 H. P.

THE TIME WAS RIPE

Motorists welcomed the Enger "40." It was automobile news to them. For it gave them a new insight into car values—and into the prevailing conditions of a great industry.

All owners of small, medium-priced cars want big cars—with more power—that they can buy for a fair price.

The Enger "40" is the only solution. Enger cars meet every desire. The line is complete.

We offer a 5-passenger touring car (fully equipped for only \$2000—a 4-passenger Torpedo for \$1750—a 4-passenger Touring car for \$1700—a 40 H. P. Roadster with Torpedo front for \$1650—the Enger Roadster for \$1600.

These models are ready for delivery.

LET THE ENGER "40" BE YOUR CRITERION.

In judging other cars let the Enger "40" be your criterion.

Then we know if you stick to the standard set by the Enger—by which you gauge the worth of other cars—you will buy an Enger "40."

It will eliminate cars far above its price.

This comparison—and investigation—will convince you that the Enger "40" has all the soundest principles of motor construction—and all the proven late ones.

When you realize the wonderful value in this car—you will buy the Enger—built under modern cost-reducing conditions.

Let the Enger "40" be your standard. Send for catalog today.

The Enger Motor Car Co.,

Gest & Summer Sts.,

CINCINNATI, OHIO.

THE BLOODED DAIRYMAN AND POULTRY RAISER

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Department of Agriculture.



JANUARY

MY MOTHER'S COOKIE JAR.

In a dim old country pantry where the light just sifted through,
Where they kept the pies and spices and the jams
and honey, too,
Where the air was always fragrant with the smell
of things to eat,
And the coolness was a refuge from the burning
summer heat—
It was there I used to find it, when I went to help
myself—
That old cookie jar a-setting underneath the pantry
shelf.
Talk of manna straight from heaven, why it isn't
on a par
With those good old-fashioned cookies from my
mother's cookie jar.

—A. B. Bratey.

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Fifty Cents a Year

One Dollar for Three Years

January
1911

Blooded Stock, The Eastern Farmer, Dairyman and Poultry Raiser January, 1911

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EDITORIAL DEPARTMENT—The editors are always glad to examine manuscripts suitable for publication in this magazine. Photographers are invited to submit photographs of subjects pertaining to any phase of farm life. Stamps should accompany both manuscripts and photographs to insure their return, if they are not accepted.

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OF INTEREST TO YOU

LOWER TARIFF FIRST DUTY. SAYS BALDWIN.

By James Creelman.

It is something in these raw, rough days of Democratic victory to sit at the center of great memories and deep learning and hear the voice of the people through the mouth of a seventy-year-old Democrat just elected in a hard-crusted little Republican State.

There was no sign of emotion in the voice of Governor-elect Simeon Eben Baldwin, of Connecticut, as he talked of the great Republican disaster and the immediate future of the Democratic party.

The venerable Democrat who saw all his party's candidates but himself engulfed in defeat, and who will presently hale Theodore Roosevelt into court for cold-blooded slander, is not a man of passions; rather a deliberate lawyer and scholar of long recollections, distinguished ancestries and more or less canonical in politics. He pushes away with a somewhat vigilant persistence all the rude and embarrassing questions of radical politics that are being shouted over the rooftops of the country.

He is six feet high, thin, angular, loose-jointed, with a shrewd New England face, dark gray eyes and a short, somewhat ragged beard that even seventy years have not yet turned to white; a rather small, square head, thin neck and narrow, slightly stooped shoulders.

"I Am a Democrat."

"I am neither a 'conservative' nor a 'progressive,'" he said, "but a moderate Democrat occupying the safe, reasonable middle course."

He sat beside an open grate fire in his queer little New Haven law office, a small room with low ceiling and bare, uncarpeted floor. It was the most old-fashioned nook in an ancient, neglected building with dark, dusty corridors and creaky stairs.

The successful hero of the political

uprising in Connecticut has been for thirty-eight years professor of constitutional law and private international law in Yale University, and recently retired from Chief Justiceship of the State because he had reached the age limit—seventy years.

On the wall beside him hung the portrait of his father, who was Governor of Connecticut and United States Senator, and on the opposite side was a picture of his grandfather, a member of Congress, with Continental ruff and queue. In his roomy old house, not far away, hang paintings of his other ancestors—a pale seventeenth century Puritan preacher of Salem, in black gown; Roger Sherman, a signer of the Declaration of Independence; that fine, brave blacksmith ancestor of Norwich, who became an officer of the Colonial militia of Massachusetts and distinguished himself as Captain Savage in one of King Philip's wars; and a former president of Yale.

Cause of Republican Defeat.

"I should say that the defeat of the Republican party was due to the high cost of living," he said; "to a popular conviction that this is largely the result of the tariff, and to a general feeling that the Republicans have been in power so long that they think more of retaining it than of deserving it. These, at least, were the two main factors in the fight."

"Then, I'm inclined to think, that the people of the whole country feared the approaches of centralization, which are often described by the term 'New Nationalism,' of which ex-President Roosevelt is the prophet."

"Mr. Roosevelt is the first citizen who has held the office of President of the United States to announce that society must change its attitude toward property."

"The property interests of the country were a unit in disapproving Mr. Roosevelt's views on this point and considered them as opening the door

to an undue extension of the doctrines of State socialism. I think that the people at large have a juster appreciation of the written Constitution than the advocates of the New Nationalism have."

What Makes Country Great.

"Thoroughgoing State socialism is impossible under our system of written constitutions, if they are justly interpreted, and the Democratic party in this campaign has been the Constitutional party, while the Republican party has been the extra-Constitutional party, and has suffered accordingly in the popular estimation."

"The plain man on the street can see that it is better that his conduct in the daily affairs of life, and the conduct of his fellow-citizens to him, should be regulated from his State capital rather than from Washington. He knows instinctively that Congress will not watch over his interests as well as his State Legislature, representing, as his Legislature inevitably will, the ideas and social traditions which are best adapted to his environment."

"What makes this country great and keeps it free is free trade between all the States and Territories from ocean to ocean, guaranteed by the National Government, and absolute local self-government in each of the separate States, interfered with by Congress only when necessary for a few national purposes."

"I think that the powers of the Interstate Commerce Commission have probably been enlarged too far. The railroads up to this time have had an immense power, when united in railroad associations, in directing the course of manufacturing industries and of farming and grazing, by their system of freights and classification."

"This has been particularly marked in their adoption, of the postage-stamp policy of freight rates; that is, by the creation of zones of territory where the same through rate was

BLOODED STOCK for January.

charged to every place in the zone from the remote to shipment. This annihilated any difference in the cost of production in one city of that zone over another incident to its proximity or remoteness to the source of supply for coal or oil for fuel, and for materials for manufacture, and, of course, also, to the market.

"This system gradually grew up like the common law, changing a little from year to year, but not much. It has created manufacturing interests which, without it, would have been impossible. It has become an old shoe, easy to wear, which doesn't pinch. It is a system which, abstractly, nobody would have devised or advised. But practically it has worked well."

"Now, with the powers of the Interstate Commerce Commission to make rates, they may or may not adhere to this postage-stamp system. If they do not it is easy to see that certain interests, built up on faith in the continuance of this system, will be seriously disturbed. If, for instance, Boston and Worcester are in the same zone as respects shipments to or from the Middle West, it is obvious that if a mileage basis were substituted Boston would suffer and Worcester take benefit proportionately."

Cling to the Constitution.

"Judge Baldwin, what, in your opinion, should the Democrats do to retain the success they have won at the polls?"

"To retain the position in which the Democratic party finds itself to-day it must continue to be the party of the Constitution. The beauty of our Federal Constitution lies in its simplicity, its use of general terms and avoidance of written detail."

"The statesmen who framed it were more familiar with world-politics than ordinary statesmen in America to-day. We've been a little world to ourselves since the days of the fathers, and it has been about all our public men could do to master American politics. The statesmen of 1787, when the Federal Constitution was framed, were not only close students of European systems of government, and of the forces which were already showing themselves in the beginning of the French Revolution, but they had the benefit of close personal intercourse with leading political thinkers both in England and on the Continent and of their frank criticisms of our early American Constitution-making."

"Toungot and De Mably, and Dr. Price, of London, had an extensive correspondence in America. From all of these sources of influence and information, men like Adams, Jefferson and Hamilton were a hundred years in advance of the general current of purely American society."

Danger Point Nearer.

"They looked forward to what America was to be. They saw that the discontents then agitating France would in the course of time agitate the American people. They were determined to provide against that contingency by supplying certain rules of action which might be invoked if the danger point should ever be reached. That danger point is nearer to-day in the United States than it has ever been."

"Our population is so large, our wealth so great, our internal com-

merce so enormous, our public lands, once such an outlet for the national growth, so inconsiderable, that a new era has opened. It is, however, the very era which our Constitution-makers anticipated and provided for in their Constitution and in the first ten amendments proposed by the first Congress, which are really a part of the original document."

"The provision in one of these amendments that no one shall be deprived of liberty or property without due process of law makes the socialism of Carl Marx forever impossible in the United States so long as that amendment remains in force. The courts have construed the phrase 'due process of law,' as nearly synonymous with social justice as expressed by the settled principles of the common law. The recent volumes of the Supreme Court reports show this attitude of the judiciary very plainly. For instance, it had been the general view of our State government, and of American lawyers, that a man could be taxed by the State where he had his home on all his personal property wherever it might be situated. A man living in Ohio, for instance, owning some goods in Illinois and some in Indiana, could be taxed in Ohio on all of them. By quite recent decisions of the Supreme Court a new doctrine has been announced, that such a man could only be taxed for goods in Indiana by Indiana, and for goods in Illinois by Illinois, and that if Ohio sought to tax him on these goods she would be taking his property without due process of law."

American Judiciary Adequate.

"This decision also serves to indicate that there is a vitality and freshness on the part of the American Judiciary which is quite adequate to such an interpretation of the Constitution as will make it secure the needs of the day."

"The people of our country are becoming so crowded together that it is like the coiling of a spring. There is a constant force of expansion to be reckoned with and provided for. The Democratic party must see to it that as this spring recoils the resulting force must be guided in proper directions. One place appropriate to expansion is the great oceans which bound our country."

"Lower Tariff Gradually."

"What seems to you to be the main duty of the Democratic party if it is to remain in power?"

"The lowering of the tariff which the people expect from the Democratic party will help our foreign commerce directly and necessarily, but it will be some time before the proper reductions can be expected. They must come gradually in fairness to vested interests. They must come gradually also on account of the fact that the Senate and the President both represent the views of the Republicans. In my opinion, however, the President and Senate will be apt to concur in moderate reductions in tariff rates and moderate additions to the free list while the Democratic party should be conservative. I don't believe in revising the tariff, schedule by schedule. There are many items in many schedules too obviously unjust even for Republican protectionists to successfully defend. They should be changed at once."

Page Three.

"What do you think will happen if the Democratic party should be conservative rather than progressive?"

"If the Democratic party means to revert to Bryanism, using that term as commonly understood, it will be relegated to the rear two years from now. In saying this I would not lightly use the name of a man for whom I have twice voted as the candidate of my party for President of the United States. I voted for him because I thought his stand on the fundamental constitutional doctrines of the Democratic party was firm and right. He is a high-minded, honorable, Christian statesman; but I do not think that political judgment and sagacity are his strong points. He has from time to time used his arguments in advocacy of measures which, in my opinion, would not make for the good of the people, and apparently the people were of that opinion when they turned him down."

"But, Judge Baldwin, what course do you think the Democratic party should follow now?"

"The real position for every party to take is a middle position, and that is the position the Democratic party should take. No party can be really great and enduring unless there is room within it for men of quite different views on minor points. The Democratic party ought always to have a conservative wing, a progressive wing and a moderate center. I belong in the center."

LESS LAND AND BETTER TILLAGE.

The average farmer, with eighty acres, has stimulating dreams of what he might accomplish with 160 acres; and he who has already 160 acres is sure he could "clear" twice as much with 320 acres. But the cold fact probably is that each of them already has enough.

CAN'T "POOR FATHER" GET PITY? IS ASKED.

Suit Makes Judge Talk of One-Sided Sympathy for "Poor Mother."

Supreme Court Justice Aspinall in Brooklyn yesterday ordered that William Y. Mather of No. 148 Henry street, be permitted to see his son Philip two days a week. The boy, who is three years old, is with his mother, Mrs. Mabel Mather, of No. 329 Chestnut street, Richmond Hill, L. I.

Mather got a divorce in California in 1907 on the ground of abandonment. Mrs. Mather's counsel said that Mather could have got a decree in Connecticut, where the pair had married.

"Oh, yes, it's the same old story," Justice Aspinall explained. "Sentimental novelists nowadays have a way of writing about 'poor mother,' but they never talk about 'poor father.' Probably the subject is too painful. It is generally a case of 'over the hills to the poorhouse' for dad."

The dairy buttermakers and market milk and cream producers should communicate with the National Dairy Show Association, 1305 Unity Bldg., Chicago, for premium lists on dairy butter and milk and cream.

HANDLING THE MARE IN FOAL.

Give Her Light Work—Feed Well—Keep the Colt Growing.

By J. H. Grisdale, Agriculturist, Central Experimental Farm.

For many horse breeders the critical time has arrived. Many farmers imagine that because the mare is getting heavy that therefore she should cease work, a most erroneous idea and a most dangerous one, too, if put into practice. Now that the snow is off the ground the mare should be called upon to work every day. Not necessarily, be it understood, to work long hours at over-straining work, but reasonable hours at moderate work. Then, as work on the land comes on she should still be kept busy. In fact, it is not too much to say that if properly fed she should work right along till the day she foals.

Feeding properly is, however, the important consideration. Exercise is essential but heavy exercise and a light ration are bad for the mare and foetus now, and worse for the mare and foal in future. Heavy rations and light exercise are much to be deprecated; troubles at the foaling time are almost sure to follow. The sensible thing is the proper thing. Feed a fairly laxative ration in quantity proportionate to the work to be done. The mare should gain in flesh rather than lose from now till the foaling time with the gain not entirely soft fat.

Feeds.

The feeds to give best results present quite a variety and are certainly at the disposal of every farmer. For heavy working mares I would suggest about a pound of hay a day (good, clean clover preferred) for each hundred pounds in weight or thereabouts and about an equal weight of grain or meal. Mixed hay may safely replace clover if the latter is not available or of poor quality. The main meal or grain ration should be of oats and dry bran, about 100 lbs. bran to 200 or 250 lbs. of oats, according to the work to be done. The harder the work the greater the proportion of oats. On Sundays less grain, and on Saturday night, a hot bran mash. This mash should be repeated two or three times a week if any signs of constipation are in evidence. Where work is not heavy or nil, then oat straw might replace the hay in part, bran make up the greater proportion of the meal or concentrate portion of the ration, and the whole amount of meal or grain fed be reduced by one-half or even more. The mashes,

however, should not be forgotten, and if persistently constipated or doing poorly, as some times happens, the addition of from half a cup to a cupful of raw linseed oil in the meal each day will be found of great value. An occasional light dose of sweet spirits of nitre (one ounce), say once in ten days will be found to be of value under similar conditions of unthrift or poor digestion.

Boiled Grains.

A not uncommon practice and one that has much in its favor is the feeding of boiled oats and occasionally boiled barley. The bran fed with the oats will take the place of boiling which treatment is of value merely on account of its effect upon the digestive organs, loosening things up as any damp boiled grain always does. The bran and oats mixture is much to be preferred to the barley as a constant feed for several reasons:—First, it is more easily prepared; Second, it is quite as easily digested and not so heating; and Third, it is much better suited to help the growth of the foetus, supplying an abundance of mineral matter for bone and of protein for different tissues now growing so rapidly. Boiled barley is likely to keep the mare in good condition, fairly fat and sleek, but it is not likely to produce good colts, nor leave the mother in quite such good condition to supply milk at parturition.

A good dose of oil and a light dose of sweet spirits of nitre will help things along right after parturition. Feed lightly for a few days, then gradually increase the ration. If in grass-time turn on a good pasture where there is shelter from sun and rain. If pasture is not very good it should be supplemented with oats or oats and barley.

Encourage Colt to Eat.

Encourage the colt to eat. A mixture of oil cake (nutted) cracked corn, bran and whole oats equal parts will do much to start him off aright. The odor takes his fancy, the taste will surely be acceptable and the composition right. A little hay, too, will do good.

Size is a most important consideration in a horse, no matter what the breed. Size depends to a very great extent on good feeding. Good feeding, that is, suitable and liberal feeding the first six months helps form the growth habit. The effects of neglect at this stage can never be entirely overcome.

Many farmers with fairly good mares and who are serving them to heavy draft horses are raising chunks and light drafters, because of lack of feed for the colt from birth to a year or a year and a half of age. It is time we were changing this penny wise pound foolish practice.

Doing His Christmas Reforming Early

The season is cummin

When hearts grow meller,

Ime goin to quit bummin

& be a Good Feller.

—Tuffold Knutt in Chicago Tribune.

"Won't you please give me an order?" pleaded the persistent drummer. "Certainly," replied the crusty proprietor. "Get out!"—Lippincott's.

BLOODED STOCK for January.

RYAN BUYS 20 WHITE BROOD MARES FOR FARM.

Great Financier Makes Notable Addition to His Stud by Purchasing Irish Horses.

Twenty of the best and whitest class brood mares that money can buy, and three thoroughbred stallions, is the order that Thomas Fortune Ryan gave some time back to Walter Russell of Glencarn, County Dublin, Ireland, and which is now executed. The horses are to be sent to Ryan's stud farm on his fine estate in Virginia.

Russell is a member of the Royal Veterinary College of Surgeons of Great Britain and Ireland, and is also manager of Richard Croker's stud farm in Ireland. Under ordinary circumstances the task set him would be no easy one. In the first place it is very difficult to locate high class blood matrons, white or nearly white. They are difficult to breed, and still more difficult to raise. But that being overcome their superiority is very marked. It is an undoubted fact that whether in show grounds, between the flags or in the hunting fields of England and Ireland the good, old gallant grey is always a keen contender.

Beautifully bred animals of this color have been obtained also, "filling the bill" in every other particular. The mares are sixteen hands high and over, very roomy, big of bone, and up to any weight. Not one is over ten years of age and their sires are well known thoroughbred stallions. If already shown in the ring, the conditions demanded that they must be prize winners or at least have had favorable mention from the judges; while if they have been at the stud they must be shown to be regular breeders. These requirements have all been fulfilled, and Mr. Ryan is to be congratulated on his enterprise.

One of the stallions is Sea King, by Persimmon, out of Sea Air, a beautiful horse of great bone and substance and showing all the quality of his sire, who won a Derby for the late King Edward. Sea Air is the dam of Pietermaritzburg, a high class race horse, so that nothing is left wanting on the score of breeding. Sea King cost Ryan a large sum.

PREVENTING COLT DISEASES BY PROPER PRECAUTIONS.

Most of the serious losses of newborn colts which occur annually in Wisconsin may be prevented by proper care, states Dr. A. S. Alexander, professor of veterinary science, who is in charge of horse breeding at the College of Agriculture of the University of Wisconsin, in a forthcoming circular of information on the care of the new-born foal. Large numbers of foals die annually from navel and joint diseases, or derangement of the bowels.

The infection is due to filth germs in dirty stalls and stables. On infecting the navel stump the germs cause pus, then secondary abscesses form elsewhere on the body, often in the joints of the extremities. Infection will not take place if the foals are born in a clean, sunny, well ventilated, disinfected and whitewashed box stall, bedded with clean, dry planing mill shavings.

BLOODED STOCK for January.

Care should be given to the navel, as follows: If it is necessary to tie the navel cord, a clean string that has been soaked in a 1 to 500 solution of corrosive sublimate should be used. At once the stump of the navel should be saturated with a solution of two drams of powdered corrosive sublimate in one pint of boiling water, to be used cold, and the application should be repeated twice a day until the navel is perfectly healed.

Carbolized lard or vaseline should be smeared around the navel to prevent the corrosive solution from blistering the skin. The foal's bowels should move freely after birth. To stimulate movement, rectal injections of lukewarm slippery elm bark tea, flaxseed tea, sweet oil or warm water may be given. If results do not promptly follow, two or four ounces of a mixture of equal parts of castor oil and sweet oil, shaken up in milk, may be administered from a bottle.

FEEDERS' PROBLEMS.

Corn And Cob Meal For Horses.

For horses that do heavy work or that are being driven on the road, corn and cob meal would not be a suitable grain to constitute the whole of the grain ration. Some experiments tried in Paris on a large scale, however, indicate that corn and cob meal is a satisfactory grain in compounding such a ration; but a horse that works should have a variety of feed, and a well-balanced ration. The excess of carbohydrates should be balanced up by the use of some concentrate that is high in protein, such as bran or oil cake. Corn and oats ground together is the old standard feed for horses and will give very good results, when fed in connection with clover hay or even good mixed hay; but this grain would be the better for the addition of some protein also. Recent experiments in the feeding of corn to horses seem to indicate that horses can be maintained on corn alone as a grain ration with greater efficiency and economy than many animals and than has been generally supposed; but for the best results a fairly well balanced ration should be used. The writer uses a ration composed of 600 lbs. of corn, 100 to 200 lbs. bran and 100 lbs. oil meal for horses at work, when feeding timothy hay; for horses which are simply fed a maintenance ration the amount of concentrates used can be decreased with economy, as these feeds have to be purchased.

BOILED BEETS FOR HORSES.

"I fed some boiled beets and man-gels to our lot of young horses last winter," remarked one of Canada's foremost horsemen recently, "and I just learned something, that is all. We had a lot of two-year-old stallions, and we gave them, in addition to their other feed some boiled beets and boiled grain, and I never saw colts go on and do so well or make such growth as two-year-olds before. I have fed boiled turnips in the same way, and found it a fine food, but never saw horses or colts do so well on them as they did last winter with beets, and I am satisfied to go on and feed our stock of horses and colts the same way during the coming winter."

\$8,926,000,000 VALUE OF U. S. FARM PRODUCTS.

Secretary Wilson Estimates Agriculture Contributed This to the Nation's Wealth in 1910—Corn Alone Could Cancel Debt of Country, buy all Gold and Silver and Leave Surplus.

Washington, Dec. 8.—Nothing short of omniscience can grasp the value of the farm products of this year, is the statement of the Secretary of Agriculture in his annual report for 1910. At no time in the world's history has a country produced farm products within one year with a value reaching \$8,926,000,000, which is the value of the agricultural products of this country for 1910. If the value of the products of 1899 is placed at 100, the value for this year is 189, or almost double the value for the census year 11 years ago. During this period of unexampled agricultural production, a period of 12 years, during which the farmers of this country have steadily advanced in prosperity and wealth and in economic independence, in intelligence, and a knowledge of agriculture, the total value of farm products is \$79,000,000,000.

In no previous year has the production of the cereal crops equaled the grand total of 5,140,896,000 bushels of the cereals of 1910. This is 13 per cent. above the five-year average. In value, however, the cereals of this year fall below that of 1908 and 1909, principally on account of the decline in the farm price of corn. This year's value is \$2,710,000,000, or about \$230,000,000 below the total for 1909 and \$50,000,000 below that of 1908.

This is the year of highest production for corn, oats, the total of all cereals, and for tobacco. But the only crop that reached its highest value this year is cotton.

Corn the National Asset.

The corn crop of 3,121,381,000 bushels exceeds that of the record year 1906, and is greater than the average crop of the preceding five years by 14 per cent. While the value of this corn crop is below that of 1909 and also 1908, its amount belongs to stories of magic. It can hardly be reckoned as less than \$1,500,000,000, a sum sufficient to cancel the interest-bearing debt of the United States, buy all of the gold and silver mined in all of the countries of the earth in 1909, and still leave to the farmers a little pocket money.

The corn crop is a national asset in more than one sense. It is not merely wealth in existence for the time being, but it is an asset of perpetual recurrence. Year after year, throughout the ages, a stupendous amount of corn with incredible value can be produced.

All of the cereals except corn are together worth only three-fourths as much as that crop.

The cotton crop of this year may be worth in lint and see a round \$900,000,000 at the farm, or more than the corn crop was worth in any year prior to 1901.

The value of the hay crop is about \$720,000,000, an amount which has been exceeded but once, and that in 1907.

The production of spring and winter wheat is 691,767,000 bushels, or substantially the average of the pre-

HORSE BREEDERS AT BANQUET.

Twenty-five Fancy Stock Raisers Are Guests of Theodore Butterworth—Tell of Profits.

Twenty-five breeders of fancy horses were guests last night at a banquet at the La Salle hotel given by Theodore Butterworth, president of the Live Stock Journal Company and one of the earliest importers of draft horses. Breeding of fancy horses is a profitable industry, according to statements made by C. W. Hurt, of Arrowsmith, Ill.

"I had one mare for which I paid \$1,300 and the colts I sold netted me \$11,000," said Mr. Hurt.

Others who spoke on the breeding of heavy horses were Senator E. B. White of Virginia, W. W. Downs, and Mr. Butterworth.

THE HORSE SAYS "DON'T."

Don't ask me to "back" with blinds on; I'm afraid to.

Don't let some blockhead with less sense than I have drive me.

Don't run me down a steep hill, for if anything should give away I might break my neck.

Don't whip me when I get frightened or I will expect it next time and make you trouble.

Don't trot me up hill, for I have you, the buggy, and myself to carry. Try running up hill with a load yourself.

Don't drive me with an "over check" on; the sun hurts my eyes and I can't see where to step. It's inhuman and cruel.

Teach me to stop when you say "whoa," and this you can do without jerking my head off or tearing my mouth. It may check me if the lines should drop or break and save a runaway and smashup.

VALUE OF THE SNOW BLANKET.

All Northern farmers know the value of a good covering of snow upon the ground in winter, but until recently nobody appears to have measured the heat-storing properties of the blanket furnished by nature to protect buried seeds when the January frosts are gripping the air. Monsieur Hjelstroem supplies the lacking information as the result of experiments made by him in Northern Europe. He finds that a dense coating of snow only one centimeter in thickness is 30 times as effective as a sheet of iron in preventing the escape of heat, and more than 50 times as effective as a sheet of copper. Even a covering made of a mixture of clay and sand is only one-seventh as effective as snow in retaining heat.

REVISED PROVERBS.

Poets are born, not paid.

Flour by any other name would cost as much.

One swallow mav not make a summer, but one grasshopper makes many springs.

A bird on the tree is worth two on the hat.

Where's there a pill there's a pay.—"Lippincott's."

\$1.00 SAVES HIM!

Cure your horse of any Spavin, Curb, Splint, Ringbone, Bony growth or Lameness with a \$1.00 bottle of

KENDALL'S SPAVIN CURE

In use over forty years. What one man says: "I have cured 38 spavins with Kendall's Spavin Cure, and think it is an excellent remedy." Yours truly, W. Stricker, Florence, S. D.

For sale at all druggists, \$1.00 per bottle. 8 for \$5. Keep it on hand. Ask druggist for "Treatise on the Horse," or write to

Dr. E. J. Kendall Co., Enosburg Falls, Vt.

Big Dividends

Capitalization Small PROFITS LARGE

Earnings come from staple products used by every one. Not a case of possible success, but of "How big a success?"

Write for Prospectus

Larchmont Farm, Inc.
Box 12 West Camp, N. Y.

Used 20 Years—Cannot be Beat.

Hempstead, L. I., April 29, '09.
R. F. D. No. 1, Box 98.
DR. B. J. KENDALL CO.
Gentlemen:—Kindly send me your book. I have used your medicine for about 20 years, and find it cannot be beaten.
Yours truly,
Daniel T. Stenson.

LET US TAN YOUR HIDE.

Cattle or Horse hide, Calf, Dog, Deer, or any kind of skin with hair or fur on. We make them soft, light, odorless, wind, moth and water proof, and make them into coats (for men or women) robes, rugs or gloves when so ordered. Your fur goods will cost you less than to buy them, and be worth more. Send three or more cow or horse hides in one shipment from anywhere east of Denver and we pay the freight both ways. Get our illustrated catalog which gives prices of tanning, taxidermy and head mounting. Also prices of fur goods, and big mounted game heads we sell.

The Crosby Frisian Fur Company,
571 Lyell Ave., Rochester, N. Y.



ceding five years, whereas the value is about \$625,000,000.

Easily the fifth crop in point of value is oats, the value of which this year is \$380,000,000. For the second time in the history of this country the crop exceeds 1,000,000,000 bushels, the precise estimate standing at 1,006,396,000 bushels.

Next in order of value is the potato crop, which has been exceeded only in two or three former years. With the exception of the crop of 1909, which was in a degree an overproduction, the crop of this year is the largest ever grown in this country. The preliminary estimate of the department is 328,787,000 bushels.

Great Sugar Production.

Beet sugar production in 1900 will about equal that of 1909, say 512,000 short tons. Its factory value is reckoned at \$51,000,000, and the factory value of cane sugar at about \$28,000,000, an amount which has been exceeded in four years.

If prospects are realized, the entire sugar crop of factory production, beet and cane combined, will be 859,000 short tons, or a production that has been exceeded in only one year, 1909. In factory value the two sugar crops will equal about \$79,000,000; and if to this be added the value of molasses, syrup, beet pulp and sorghum and maple products, the combined value is about \$97,000,000.

The tobacco crop has slightly exceeded the production of the record year, 1909, and its 967,150,000 pounds are 26 per cent. above the average production of the five preceding years. Its value will be about \$95,000,000.

Barley has hardly maintained the average production of the preceding five years, the crop of this year being 158,000,138,000 bushels, but its value \$97,000,000, is 16 per cent. above the five-year average.

Rye is one of the steady crops, both in quantity and in value, the production of 32,088,000 bushels this year being worth at the farm about \$23,000,000.

Rice production in 1910 remained substantially at the figure of 1909, or a little over 1,000,000,000 pounds of rough rice. The price of rice, however, has declined, so that the crop of this year is worth hardly \$16,000,000.

Turn the cabbage upside down, leaving the roots on, and cover the heads with earth about four inches, leaving the roots sticking out, and they will keep fine in this way.

There are many ways of throwing away money, but one of the most common is in leaving the farm implements in the field where they were last used.

A GILT-EDGED INVESTMENT.

7. 8 or 9 Per Cent. Guaranteed on Sums From \$50 to \$200.

To a limited number of Blooded Stock readers of character and standing in their respective communities, we shall be glad to send particulars concerning a thoroughly gilt-edged investment guaranteeing 7 per cent. at least, with 8 or 9 per cent. as a possibility. No large amounts taken.

BLOODED STOCK,
Oxford, Pa.

BLOODED STOCK for January.

JERSEY CATTLE NOTES.

Week ending, October 21, 1910:
Number of animals registered:
Bulls, 75; cows 288; total, 363. Number of transfers recorded: Bulls, 175; cows, 293; total 468.—American Jersey Cattle Club, New York, N. Y.

While one man says a thing is "impossible," another passes him and does it. We cannot say anything is impossible, only that it had never yet been done.

HOGS.

FOR SALE—Thoroughbred Durocs Poland Chinas and large Yorkshire Swine, Rhode Island Red Chickens and eggs. WM. HARSHMAN, Thurmont, Md.

BARGAINS IN POLAND - CHINAS, BERKSHIRES and CHESTER WHITES I now have a large stock of probably the best I ever owned. Cannot tell you all here, but I have Boars and Sows, all breeds, 2 to 6 months old mated not akin; sows bred and born ready for service. Guernsey Calves and Registered Scotch Collie Puppies. Write for prices and free circular. This stock must go and will be sold. M. B. Turkeys, Bred and White F. Rocks, B. Leghorns and Beagle Dogs. P. F. HAMILTON, Coshramville, Pa.

FOR SALE—Some fine Yorkshire Pigs—no better stock in U. S. Just imported—new blood. A. A. BRADLEY, Frewsburg, N. Y.

MILCH GOATS.

MILCH GOATS—Information regarding this most profitable milk producing animal. Write G. H. Wickersham, 1242 St. Francis avenue, Wichita, Kansas.

POULTRY.

FOR SALE—Good honest stock eggs of Single Comb, Brown Leghorns; finest strains. Cups and Blue Ribbon winners at Cumberland, Frostburg and Somerset. 600 fine large farm-raised birds for sale at reasonable prices. Twenty-five extra choice Light Brahma cockerels for sale. Write me. HERMAN SHOCKEY, Sand Patch, Pa.

MISCELLANEOUS.

HORSES going blind Barry Co., Iowa City, Ia., can cure.

AUTOMOBILISTS ATTENTION—Fur-lined coat never worn, lined throughout with the best Australian mink, elegant Persian lamb collar, cost \$175, will sell for \$35, also pair of cinnamon bear robes \$50 cost \$120. Write W. SCOTT, 121 East 27th St., New York.

TROTTER MARE for sale—a handsome, black, trotting mare, and beautiful stud colt, very fast. Second cousin to Dan Patch. Price \$200. P. J. WYAND, Cumberland, Md.

FOR SALE—Two litters Scotch Collie puppies, sired by the noted "Flying Comet" and "Laddie Boy," out of bitches bred in the purple; perfectly marked golden sable; strong, healthy, farm-raised stock. Prices from \$10 up. FRANK H. TAYLOR, Reedsville, Pa.

SEND 10c for a sample copy of the largest, newest, race-horse paper published. P. J. WYAND, Cumberland, Md.

FOR SALE—Pure bred Registered Holstein bull calf. Mostly white. Fine individual. Good pedigree. Write for pedigree, photograph and price. MADISON COOPER, 101 Court, Watertown, N. Y.

BLOODED STOCK for January.

HOG CHOLERA CURED

SNODDY REMEDY CO., Alton, Ills.

Orient, O., Nov. 16, '09.

Gentlemen: I have now given your remedy a hard test. My hogs were very sick and dying when I began the use of your remedy. A few of them were so near dead I could not get the medicine in them and these of course died. I have saved everything else that was able to take the treatment and my hogs are now in fine shape and are on full feed doing well. My sows that were near farrowing time had the cholera and I cured them. They have since farrowed strong, healthy pigs and the sows and pigs are doing fine. It is the only remedy that I have ever heard of that will absolutely cure hog cholera after the hogs are sick and especially save the pigs from the sows after going through the cholera as mine did. I have the utmost confidence in the remedy and recommend it to all hog raisers as a remedy that they can rely on in safety. I will answer any letters addressed to me from feeders who will enclose postage for reply.

With kindest regards, I am,

Respect.,

D. O. MCKINLEY.

Snoddy's free book of instructions will explain the whole method of handling diseased herds and keeping hogs in thrift, will be sent free on request. Address

The Snoddy Remedy Co., Alton, Ill. Station "C"

SWINE BREEDING FACTS.

It is doubtful whether unlimited pasture may be considered economical, except perhaps for brood sows. The proper amount of land to give over to pasture must necessarily vary according to its quality and other local considerations, and the length of time the pasture will sustain hogs likewise is dependent upon the climate, quality of the crop, age and number of the animals, and other varying conditions. For an average it may be said that an acre of red clover should support six to ten hogs for three of four months. Alfalfa, the leading pasture plant for swine, should provide, if of vigorous growth, for twelve to twenty-five animals per acre, but an alfalfa stand should not be grazed by so many hogs that mowing will not be necessary for keeping it in the best condition. The practice with alfalfa should be to pasture fewer hogs than will be able to keep back a rank or woody growth.

Livestock husbandry represents a high type of constructive effort, and swine breeding offers as much satisfaction and gain as any other branch. It may profitably engage the attention of the man who raises hogs merely for financial motives, but a breeder who attains a foremost place in his calling has an interest in his business not inspired solely by rewards in money. The compensations in swine raising are ample for the man who desires to make his work a profession, as hundreds who have a just pride in their achievements can testify.

Even when corn is high, the relative price for pork frequently makes it the cheapest feed for finishing; 50-cent corn is not expensive feed for 6-cent hogs. Up to the last six weeks of feeding, wheat, rye or other cheaper substitutes may be used with grass, but in the ordinary course corn will be the best dependence for the close of the fattening period.—From Corn-burn's "Swine in America."

EDITORIAL PEN POINTS.

Kermit says: "Dad wants to be the corpse at a funeral." Well, it is tolerable clear, that for once he is.—Providence Tribune.

He can't head the procession as usual. Dad goes to the rear with the "Hearst."

POSSIBILITIES FOR SWINE IN THE CORN BELT.

While undoubtedly the corn belt is the greatest swine producing area in all the world, and while big sums of money have been made in the aggregate from the growing of pork, the fact remains, nevertheless, that the industry could have been made considerably more profitable had the farmers there given more attention to diversifying their crops. The common idea with reference to the corn belt is, that it is only good for growing corn, and that in consequence it furnishes a one-sided ration for growing hogs. Such an idea is a mistake. In scarcely any part of the corn belt does clover fail, and in very many sections alfalfa grows to perfection. Cowpeas and soy beans can be grown within this area, consequently the farmer who cares to do so can easily grow food for swine that would be in just as good balance as food grown farther north or south.

It is unfortunate that these facts have not been more fully recognized in the past. If they had been we feel certain that the enormous losses from hog cholera in the corn belt would have been cut in two. The non-prolificacy that is often complained of in the breeding sows would not have existed, and that fineness of bone and weakness of stamina which has greatly reduced the progress of the swine industry would have been absent. It is not too late, however, for the farmers of the corn belt to turn over a new leaf. We are satisfied that giving proper attention to the growing of these foods to be fed along with the corn would in a sense revolutionize pork growing in the corn states.

Good Place for Camels.

Governor Glasscock, of West Virginia, while traveling through Arizona, noticed the dry, dusty appearance of the country.

"Doesn't it ever rain here?" he asked one of the natives.

"Rain?" The native spat. "Rain?" "Why, say, pardner, there's bullfrogs in this yere town over five years old that hain't learned to swim yet."

Don't try to see how warm you can make your hog house this winter; but see how well bedded you can keep it and how well you can ventilate it. Fresh air is needed by the hog as much as it is by any other animal on the farm.

COMMENCEMENT BULLETIN.

The Commencement Bulletin of the Pennsylvania State College, just received, contains some notable addresses. One is by Dr. S. F. Weber, of Louisiana, on "The Function of the American High School," and another on "Know Your Position," by John H. Jones, of Pittsburgh. The President's statement shows the remarkable growth of this institution in the number of students and the unusual work it is doing for the betterment of the people through its agricultural trains, its mining institutes and its apprentice schools in various cities. The pamphlet also contains the proceedings of a conference of High School Principals of the State called to consider the relations between the public schools and the college. A copy of the bulletin may be obtained by addressing the Registrar, State College, Pa.

COWS MOTHERING PIGS.

That such a happening is not as unusual as some people believe is shown by the fact that other instances are reported. For example, a dispatch from Owensville, Ind., last week says: "Reese Gentry, a prominent farmer living near Mount Vernon, has a cow on his farm that adopted a litter of pigs after her twin calves were sold to the butcher. It happened that the piggies became motherless about the time the cow became calfless. The grief-stricken cow wandered about the farm hunting something to coddle when her eyes spied the squealing orphan pigs, and it was love at first sight. The old cow does the mother act until it comes to grunting, and it must be admitted that she is shy on that art. The pigs do the calf stunt by standing on their hind legs and bracing themselves against their foster mother while taking nourishment."

THE LAZIEST MAN.

A farmer, finding a dozen idlers stretched out on the ground, offered a shilling to the laziest one of the lot. Eleven jumped up and claimed the reward, each asserting himself to be the laziest. The shilling, however, was given to the twelfth, who had slothfully kept his position.—Leslie's Weekly.

OUR FEATHERED FRIENDS

THE NORTH AMERICAN'S INTERNATIONAL EGG LAYING CONTEST—BEGINNING FEBRUARY 1, 1911.

The International Egg Laying Contest has been inaugurated for the purpose of determining the relative value of the several breeds and varieties of fowls as egg producers, where all conditions or care, food and housing are equal.

Under the auspices of The North American, Philadelphia, the Vineland Poultry and Pet Stock Association, Vineland, N. J., will hold such a contest in a section where intensive poultry culture is extensively carried on; where the soil and climatic conditions are most favorable.

A proper housing of the entries in new buildings will be made upon ground never before used for poultry; the contest will be carried on under the personal management of F. V. L. Turner, an employee of The North American, and an experienced poultryman, who is thoroughly equipped for the purpose and who has the unequivocal indorsement of the Vineland Poultry and Pet Stock Association.

Inasmuch as such a contest has never been held in this country, its introduction will meet with the approval of the entire poultry world, and the conduct of the enterprise by such a solid and substantial institution as The North American is a guarantee of its success and integrity.

This contest will cover a period of one year, beginning February 1, 1911, and will be held at Vineland, N. J., U. S. A. All entries must be made prior to January 1, 1911, and shipment of contesting fowls will be so made as to reach Vineland not earlier than January 24 and not later than January 29.

Each entry will consist of ten layers with or without one male, at the option of the entrant. Every fowl in each entry must be perfectly healthy; sick fowls will be immediately returned to the entrant. Chickens and ducks only are eligible. Labels will be sent for each entry and each label must bear the sender's name and address legibly written thereon and the return express routing. All express charges must be prepaid.

While all possible care will be exercised against loss, the management assumes no risk for damage by fire or otherwise.

Contestants will be admitted to the grounds upon which the contest is held, accompanied by a guide furnished by the management, if engagements are previously made in writing; and this precaution will be exercised with all visitors, thus guaranteeing to each contestant ample protection in this direction. It is anticipated that the entries will be quite numerous and prospective entrants are urged to at once reserve space. Especial emphasis is laid upon the date of entry—January 1, 1911.

The value of the contest to participating poultrymen is manifest; The North American will give at length detailed reports of its progress; the entire press of the country will place these results as pure news before the

public; in justice to subscribers and advertisers, the poultry press will be compelled to disseminate them; as an advertising feature, contestants will have a decided advantage over their non-contesting competitors, an advantage, unobtainable in any other manner at any price. As an incentive to the poultry-purchasing public, its actual worth is beyond estimate. Taken in its entirety, this contest will give such a direct and absolute impetus to the poultry industry as has been heretofore impossible.

\$22,000 HENS LAY EGGS WORTH \$25.

Philadelphia, Dec. 14.—Winner over all others of her breed Lady Washington, a raven black Orpington hen, worth \$12,000, has only one of her kind as a rival, her own daughter. Her offspring is worth \$10,000. Whenever either chooses to do so the commonplace thing of laying an egg that egg is worth \$25.

Both chickens are to-day on exhibition at the Fifth Annual Poultry Show in this city. Lady Washington hails from Factoryville, Pa., is accompanied by two attendants and occupies a special constructed coop in a specially conserved compartment.

Note—We have some raven black Orpingtons that we will take considerably less than the prices named above.—Editor.

Prizes at the National Dairy Show.

Particular attention has been given by the management of the National Dairy Show this year to the questions of prizes, medals, diplomas, etc. Cash prizes are larger in nearly all departments and the medals and diplomas

will be real arts of work. A high standard of excellence is aimed at so that the recipients will prize them for their intrinsic worth as well as for the honor which is associated with them.

The paper in the December Century on "The Education of French Children," by Anna Bowman Dodd, author of "Three Normandy Inns" and "Cathedral Days," will be the first of a group of papers to appear in The Century during 1911 on child culture in different countries—papers designed to be of helpful and suggestive interest to American parents and educators. In her presentation of the case of the French child, Mrs. Dodd will show how the French passion of exclusiveness in all family relations and the passionate absorption of the French parent in the child are dominant factors in France's home, school, and social life. The illustrations are by the distinguished French painter of child life, Maurice Boutet de Monvel.

If the garden tools get rusty, soak them for a day in the whey from sour milk; then the rust may be scrubbed off with a stiff brush or coarse cloth. Give them afterwards a good rubbing with coal oil.

Cheesemakers will be interested in learning that the prizes on cheese at the coming National Dairy Show have been greatly increased. Premium lists will be mailed on application to the National Dairy Show Association, 1305 Unity Building, Chicago.

Being angry is like emptying the pepper-box in your own porridge.

THESE SICKLY-LOOKING CHICKS NOT FED OUR WAY

They wouldn't be wilted, forlorn and droopy as are these poor little fellows. What's the matter? Likely some one has been feeding a lot of table scraps, or sour bread, or some other indigestible mixture that is fermenting in their stomachs. Tomorrow the owner will find eight or ten dead, and wonder: "What killed my chicks?" Chicks are babies and must have baby food. That's why Puritan Chick Food is so successful in rearing chicks, keeping them well and holding down the death-rate. It just "fits" the interior mechanism of the digestive organs of a chick.

Puritan Chick Food (The Safe Kind)

has a delightful taste and odor to a little chick, because it is compounded of those very pure, wholesome and sweet elements that naturally attract it. Your little "poult-balls" will make things by scratching; they are always happy and busy, when fed on it. Some of the largest poultry plants use Puritan Chick Food. It pays them, it will pay you, no matter how small your flock. It is foresight, wisdom, economy and profit, for you always to keep it on hand. It's true life insurance for your chicks, all other things being equal. We guarantee it so, and refund money if you're not satisfied. No fussing about it, either—your word is final. Puritan Chick Food is put up in 5-lb. boxes for 25c; 25-lb. bags \$1.00; 50-lb. bags \$1.75; 100-lb. bags \$3.25. Ask your dealer for it. If he hasn't it, we'll supply you. Booklet free. Write now for it.

Puritan American Poultry Food Mfg. Co.,
Bound Brook New Jersey



28,000 FARMERS TO APPEAL TO OTTAWA FOR RECIPROCITY WITH UNITED STATES.

Winnipeg, Man., Saturday.—Five hundred farmers will leave here on Monday on a special excursion to Ottawa. There will be no women or children on board, and every man in the party will be fired with a sense of personal injustice. The object of the pilgrimage is to demand relief from the domination of the manufacturers and other classes, whom the farmers look upon as bitter enemies. They will seek this relief from Parliament. The trip will be expensive, but every farmer is paying his own fare or it is being paid by a group of his neighbors.

In Ottawa next Friday, with five hundred agriculturists from the eastern portion of Canada, they will form the most powerful class delegation that ever has approached the government.

The farmers will seek several reforms, but they are most insistent on reciprocity with the United States. They demand that all manufactured articles used by the farmers be placed on the free list. They will ask for government ownership of the terminal elevators at the head of Lake Superior, alleging graft in their private control; government ownership of a line to Hudson's Bay; the establishment of a chilled meat industry in the West and a bill to permit the formation of co-operative companies. In fact, they declare war against the financial interests and seek to trade their votes for the support of the government.

The striking feature of this unique action is that the farmers are backed by probably the most powerful organization in Canada. The Western deputation will represent the Grain Growers' Association, which is twenty-eight thousand strong. The Eastern organization has a membership of twelve thousand. In nine years this association has reached a voting strength that sways the Provincial governments, and in the last five of these years ten thousand of them by co-operation have overthrown the allied forces of the grain interests and worked up a \$20,000,000 business. This year they are handling co-operatively one-quarter of the grain in the greatest cereal market on the North American continent.

Since Mr. W. R. Motherwell, now Minister of Agriculture for Saskatchewan, started in 1901, to agitate the movement for a farmers' organization the influence has been felt in in-

creasing force by the Provincial governments. In Manitoba it has resulted in legislation for the government ownership of grain elevators.

The Saskatchewan government, in response to similar pressure, appointed a commission to investigate elevator conditions, and the commission suggested a co-operative joint stock company owned entirely by the agriculturists of the Province and free entirely from government control or interference.

Alberta, in addition to undertaking relief of grain conditions, has pledged itself to the institution of pork packing plants and government hail insurance.

In 1904 E. A. Partridge, of Sinaluta, was appointed by the United Grain Growers to investigate the conditions of the Winnipeg Grain Exchange and to study market methods. As a result of this investigation the Grain Growers' Grain Company was launched on July 27, 1906, with the Sinaluta man as president. It is a joint stock company, in which the stockholders are farmers, and their wives and sons bought shares at \$25 each, a condition being that no shareholder can hold more than four shares, which cannot be sold or transferred without the consent of the body of shareholders.

The fight precipitated by the organization of this company has been bitter, even involving the Legislature, but the farmers always have been the victors. During the last year the company has handled about twenty million dollars worth of business. It now possesses a paid-up capital of nearly \$300,000, on which it has declared a dividend of fifteen per cent. It has voted \$25,000 toward an educational fund, with the object of enlisting the farmers in the scheme of organization in every part of the Provinces. It has ten thousand shareholders and the number is increasing rapidly.

PAPERS READ AND DISCUSSED.

Institute Organization and Methods.—J. D. Tinsley, Agricultural College, N. Mex.; J. H. Connell, Stillwater, Okla.; W. C. Latta, LaFayette, Ind.

Institute Lecturers.—T. A. Hoverstad, Fargo, N. D.; B. Walker McKeen, Fryeburg, Me.; D. W. Working, Morgantown, W. Va.

Cooperation with other Educational Agencies.—Geo. McKerrrow, Madison, Wis.; G. C. Creelman, Guelph, Ont.; K. L. Butterfield, Amherst, Mass.

Movable Schools of Agriculture.—Alva Agee, State College, Pa.; L. R. Taft, East Lansing, Mich.; L. A. Merrill, Salt Lake City, Utah.

Boys' and Girls' Institutes.—A. E. Chamberlain, Brookings, S. Dak.; F. H. Rankin, Urbana, Ill.; Val Keyser, Lincoln, Neb.

Women's Institutes.—Mrs. F. L. Stevens, Raleigh, N. C.; Miss Martha Van Rensselaer, Cornell University, Ithaca, N. Y.; Miss Laura Rose, Guelph, Ontario, Canada.

"The Problem of the Indifferent Farmer," by C. C. James, Toronto, Ontario.

What are the leading objects of the farmers' institute, and how shall it perfect its organization to best attain these objects? By W. C. Latta, LaFayette, Ind.

Before an institution is granted should a number of persons be required to subscribe to a pledge to attend as a class all of the sessions for systematic study? By D. W. Working, Morgantown, W. Va.

Should lecturers prior to their being employed on the State institute force be required to hold certificates from recognized authority certifying to their qualifications in the subjects they propose to teach? If so, from what authorities should the certificates be secured? By D. F. Witter, Berkshire, N. Y.

Should a corps of experts be employed by the year for the purpose of organizing clubs and establishing and over-seeing demonstrations in agriculture? By G. C. Creelman, Guelph, Ontario.

Has the time arrived when institutes should be organized specially and separately for young people between the ages of 14 and 18? By J. M. Stedman, Washington, D. C.

What plan should be adopted in organizing young people's institutes? By A. D. Wilson, St. Anthony Park, Minn.

What are the objects desirable to attain through young people's institutes? By Mrs. F. L. Stevens, Raleigh, N. C.

What kind of exercises are best suited for attaining these objects, and what are the best methods of conducting such exercises? By Fred H. Rankin, Urbana, Ill.

What are the desirable qualifications in teachers for young people's institutes? By W. L. Hutchison, Agricultural College, Miss.

Has the time arrived when institutes should be organized specially and separately for women? By Miss Jennie Buell, Ann Arbor, Mich.

What plan should be adopted in organizing women's institutes? By Miss Jennie C. Barlow, Champaign, Ill.

What are the objects desirable to attain through women's institutes? By Mrs. H. J. Patterson, College Park, Md., and Mrs. Henrietta Calvin, LaFayette, Ind.

What kind of exercises are best suited for attaining these objects, and what are the best methods of conducting such exercises? By Mrs. Helen Wells, New York, N. Y.

What are the desirable qualifications in teachers for women's institutes? By Miss Martha Van Rensselaer, Ithaca, N. Y.

At the Association of American Agricultural Colleges and Experiment Stations annual convention in Washington, November 16, and continuing through the 17th and 18th. Those in attendance at the meeting of the Farmers' Institute Workers arranged to remain over and attend the sessions of the Association of Colleges and Stations.

Her Status.

(From the Louisville Courier-Journal.)
"Oh, that my son should wish to marry an actress!" shrieked the proud, patrician mother.

"Now, ma, don't take on so," beseeched the undutiful heir. "She isn't really an actress; she only thinks she is."

No Pressing Need.

(From the Providence Journal.)
Ross Cox, of Cincinnati, is about to make his home in New York. But does New York need any more bosses?

Belle Brand Crushed Oyster Shells

Make Poultry PAY!
Tests show where these shells have been used—duration of test 22 days—number of eggs, 83; weight of eggs, 1489.6 grammes.

Where Sharp Grits were fed—test 22 days—number of eggs, 6; weight of eggs, 257.6 grammes. This is a convincing argument why every poultry house or yard should have them. They'll make hens lay an egg a day, with firm, hard shell—less liable to break in shipment.

Belle Brand Crushed Oyster Shells supply Carbonate of Lime in natural form and acts as a grit, making them superior to any other poultry food on the market. Write for Free Catalogue to
LOUIS GREB, BALTIMORE, MD.

FRUITS AND VEGETABLES

CLAIMS BEST APPLES.

Says an Expert From United States Agricultural Department.

Harrisburg:—After laboring for 20 years with a determination to "make two blades of grass grow where only one grew before," and to perfect an improved species of apples, Luther M. Simons has at last reached the goal of his ambition. An expert, Mr. Wilder, from the United States Department of Agriculture at Washington, made an inspection of Mr. Simon's 10-acre farm near Linglestown and pronounced his Grim's Golden and Baldwin apples unexcelled anywhere in the United States. He said the flavor was even superior to apples raised on the Pacific Coast. The expert took soil, photographed the trees and obtained samples of the fruit, which were taken to Washington for investigation with a view of ascertaining the cause of Mr. Simon's unusual success.

Former Harrisburger.

The story of Mr. Simon's life is almost as interesting as his success as an apple grower. He was born in 1834, in the building now occupied by the Greek-American Confectionery Store on Market street, and has associated with many of the old and prominent citizens of Harrisburg in his youth. He was a student at the Harrisburg Military Academy and was graduated from Yale University in 1855, as an architect. Together with his father, who was a builder, he designed and superintended the erection of many prominent buildings in Harrisburg. Among the structures which he drew the plans for are: The Commonwealth Trust building, one of the finest office buildings in Harrisburg; Senator Cameron's residence, at Front and State streets; Judge Weiss's residence on Third street, and the State Arsenal.

Back to the Soil.

Later he held an office at the Capitol, but was prompted by his love of nature to desert the city and spend the remainder of his life on a farm in the Blue Mountains, back of Linglestown.

In 1858 he married Miss Mary Pancost, of Mt. Holly, N. J. They have one child, a son.

Simon's fruit and berries are not sold outside of Harrisburg. The news stand at the Union station and the Studebaker grocery store at Second and Market streets, are the only dealers who are supplied with his fruit. The rest goes to friends in this city. He is 76 years of age, a tall, broad man with an impressive personality. If you show him an apple or any other kind of fruit he can tell you under what condition it was raised, how it could be improved and why it is defective, if it be so.

STARTING AN ORCHARD.

George H. Hardner, of Allentown, to Plant Several Thousand Fruit Trees and Grape Vines—State Department of Agriculture to Have Charge.

Allentown, Nov. 28 (Special).—Representatives of the State Depart-

ment of Agriculture began during the past week the planting of trees on the farm of George H. Hardner, Allentown's leading contractor and proprietor of the Allentown Democrat, for what is to be the model orchard of Pennsylvania. Mr. Hardner, who has for several years been the potato king of Lehigh county, has 600 acres in Lowhill at the junction of the Jordan and Haas creeks. He has gone into farming with the thoroughgoing care of a trained business man, and has long cherished the idea of owning a fine orchard.

Several years ago he set out about 10 acres of apple trees but by spring found that the rabbits had barked them all and the trees died. Trouble from rabbits will henceforth be overcome by the use of tree guards. His first experiment at any rate was just an old-fashioned home-made idea, but the present one will be carried out on the most scientific basis. The real architect of the orchard is Professor Surface, State Zoologist, who at the solicitation of Mr. Hardner, was given full sway to do what he pleased in establishing the finest orchard he knew how, regardless of expense.

Planting will be carried on apace during the next few weeks. There will be 500 apple trees, 1,000 peach trees, 100 plum trees, 100 pear trees, 200 grape vines, besides English walnuts, apricots, Japanese persimmons, cherries and all other fruits that it is calculated will grow in this latitude. A total area of 28 acres will be covered with the trees. For five years the orchard will be under the supervision of the Department of Agriculture. Daniel G. Hopkins, Superintendent of farms for Mr. Hardner, in preparation for this experiment, has been taking a special course in pomology at State College.

While no expense will be spared in developing the orchard and spraying, pruning and fertilization will be done on most modern lines, the project is a thoroughly businesslike one, with the expectation of satisfactory results. Of all the fruit trees planted there are many varieties. The supervisor representing the State in the starting of the orchard is Fred Fertig, of Lebanon.

THE VALUE OF AN APPLE TREE.

The just appraisal of tree values depends upon so many variable factors, that without knowing the particulars of the individual case it is only possible to give a rough estimate, and such an estimate may be regarded as a sort of base line, from which the true value may depart widely in either direction, says the "Rural New Yorker." With this premise, I would consider that a conservative valuation would be \$10 for each apple tree that had reached the self-supporting age, which may fairly be considered to be in about ten years from planting, thus making the yearly increase of value \$1, or \$3 for a three-year-old tree. If this valuation errs, it is on the side of too low a value, and an offer of \$3 apiece would certainly not buy any of my own well grown three-year-olds.

It is earnestly to be desired that some method may be found by which the fruit grower may be at least partially compensated for the damage caused by deer, which from an agricultural standpoint are as truly wild and noxious animals as wolves or coyotes, and cause greater injury, for whereas the wolf takes an occasional sheep, a herd of deer will destroy hundreds of trees, each one of which is worth as much as a fleece carrier.

THE KIND OF SULPHUR NEEDED FOR SPRAY SOLUTION.

Prof. Surface Says the Cheapest Grade is as Good as Any.

At this time of year many inquiries are made of State Zoologist H. A. Surface, concerning the kind of material that should be used to make the lime-sulphur solution, which the progressive fruit growers of Pennsylvania have found to be the most efficient and satisfactory material in destroying the San Jose scale, which was once so injurious to their orchards. An inquiry was also made concerning potash fertilizers. Dr. Surface gives the following reply:

"The flowers of sulphur are the most finely divided precipitate, and this form sells at the highest price. The flour of sulphur is finely ground sulphur, also chemically pure, but not quite so high in price as the precipitated 'flowers.' The commercial sulphur flour is finely ground brimstone, just as it is quarried from the craters or volcanoes where sulphur occurs. It contains some ash and impurity, but it is the cheapest, and, therefore, is the most desirable form of sulphur for making the lime-sulphur wash, as it serves the purpose just as well as the most expensive forms.

Muriate of potash and sulphate of potash are the two more expensive forms of potash fertilizer. The least expensive form being kainit, which is a very low grade of potash. The sulphate sells at a few dollars more per ton than the muriate, and it also contains a little more potash, and some persons think that it is more valuable for plants. It is generally agreed that the muriate, when used for potatoes, makes them tough, while the sulphate makes them tender or mealy. They are chemically different materials, each of which contains potash to form one of the essential fertilizing elements of plants, and both are valuable as fertilizers. The difference is not in purity, but in chemical composition."

The Indiana Agricultural Experiment Station has shown that dry fodder loses 25 to 85 per cent. of its nutrition, compared with corn silage, in feeding. That ought to commend the silage method of saving corn fodder to anyone. If one were losing that large percentage in handling his wheat, corn or other cereals he would certainly change his methods to something better when the loss was shown to him.

PLANTS AND THEIR PESTS.

Timely Topics of Interest to Farmers Discussed by H. A. Surface, State Zoologist.

No Poisonous Cabbage Snake.

State Zoologist Surface shows loss from belief in a poisonous reptile.

A cabbage grower in Eastern Pennsylvania sent to State Zoologist H. A. Surface, of Harrisburg, a fine white thread worm, which had been found in a cabbage bed, and which he had been told was deadly poison. He desired accurate information concerning this, and the professor replied as follows:

"I found the package to contain a specimen of small thread worm, which is commonly known as the cabbage hair worm, and incorrectly called 'The Cabbage Snake.' The scientific name of this little hair worm is mermis albicans. It is not larger than a fine thread of corn silk, and is even more delicate.

"I hasten to say that reports as to its poisonous nature are entirely untrue and unfounded. In fact, they have caused a great deal of needless fear, and even direct loss. This loss has come from the hesitation and refusal of persons to use cabbage for food after they have been informed that it is liable to be infested with a deadly, poisonous pest.

"The U. S. Department of Agriculture has published an interesting Bulletin as their Circular No. 62 on this subject, in which they state that Dr. Lewis LeRoy, of Nashville, Tenn., purposely ate one of these little worms with the cabbage in which it had occurred, and, of course, suffered no ill effects. They also made extracts from the hair worms, and injected them into animals, and were not able to poison them by this method. As a result the correct conclusion was reached 'that the cabbage snake is entirely harmless and the public rumors and superstitions are fallacies without semblance of foundation.'

"The only truth is the entire theory of the poisonous properties of this little thread worm is in the fact that there is such a creature in existence. I would not hesitate to eat one to demonstrate its harmless qualities, although one does not naturally crave or relish such a diet, yet it is not more objectionable than any other article of food, like the contents of green peas, raw oysters, etc.

"The belief that there is a poisonous cabbage head snake that lives in cabbage, has, unfortunately, become so widespread that it has seriously affected the sale of cabbage by reducing the demand for it for human consumption. Since there is no foundation for this belief, it is to be regretted that it has had such result. I trust that you will do what is possible to induce the newspapers to correct the mistake they have made by publishing statements concerning its supposedly poisonous nature. These statements have made interesting reading, although entirely without truth. It will now be likewise interesting for intelligent editors to help develop our agricultural possibilities by stating that there is no danger whatever of any kind of poisoning or disease coming from eating cabbage, whether raw, cooked, made into kraut, or otherwise."

HORSES BETTER THAN EVER.

Expert Rommel, Head of Animal Industry, Says Ours Are as Good as Any.—Mobiles Have Driven Out Cheap Light Horses.

George M. Rommel, chief of the animal husbandry division of the Agricultural Department, came up from Washington to look over the N. Y. Horse Show.

He will leave one of his assistants here to remain until the end of the show. Mr. Rommel said yesterday at the Imperial that horse breeding had advanced to such a stage in America that it was only prejudice that was responsible for people buying imported stock at higher prices.

"The breeding of horses in this country is improving," said Mr. Rommel. "It's got to, because the market won't have anything to do with a horse that is not good.

"Our farmers have gone very largely into breeding draught horses, especially in more level parts of the country, where there is no hill work. The cheap, light horse of 1,200 pounds or under is not wanted any more, but there is just as much demand for a good light horse as ever. The farmer has got to breed either a draught horse or a light horse, and whichever he breeds he has got to insure a good one. There is a market only for good horses. If the farmer mixes a light and a heavy animal he gets a lot of pluggy animals that he cannot sell. If he breeds a good big sound draught horse of 1,600 pounds he has no difficulty in selling him. On the other hand, if he breeds light horses, and is careful to see that they have good conformation, style and action, he has also got a salable horse for carriage and saddle purposes.

"It is harder to breed light horses. Let a carriage horse have a blemish or a scratch and he will be turned down by the big dealers. What made the Americans go into the breeding of big draught horses was largely the increase in the size of farming implements and machinery. The farmer is using bigger ploughs. Where he used to use a single plough he now uses a double one, and where he used to employ a walking plough he now rides. Then he has taken to big three-horse ploughs. Besides, pulling conditions in the cities have created a demand for the big draught horses produced on the farm.

"Horse shows have done a great deal toward improving breeding. The farmers are taking more pride in their stock, and there are more state and county fairs than ever. It is not as easy to get a prize as it used to be, for there is so much more competition.

"I should say that the most intelligent breeding in this country is being done in Kentucky, in the Blue Grass region. There they have had long experience, and the farmers are horsemen, and understand the principles of breeding, and they are good judges of horseflesh, too. Practically no draught horses, however, are to be found in that region, and it is just as well that there are not. Instead they use mules. When they have a mare that is not fine enough to breed a good saddle or carriage horse they breed her to a jack.

"The best draught horses in this country are bred in what is known as the corn belt, which runs from Kansas



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and Nebraska on the West to Ohio on the east, and of which Iowa and Illinois are the center. There are parts of the East, too, where they get good draught horses. Frederick and Carroll counties, Maryland, and Loudon county, Virginia, produces just as fine specimens of this kind as are raised anywhere.

"Do I think the automobile is driving out the horse? Well, figures show that horses are not diminishing, in fact that there are more horses in the country than ever. I believe, however, that there are fewer light horses.

"The automobile, as near as I can ascertain, has driven a great many cheap saddle and driving horses off the roads and probably out of the cities. But it doesn't appreciably affect draught horses, except the light delivery horses of say 1,200 pounds. If the auto has driven out the saddle and carriage horse generally why is it that these are higher in price than before the auto came? The people who before the advent of the automobile were the best customers for saddle horses were such as could afford to have both horses and automobiles. When the auto came it drove out the cheaper grades, but the prices of the better ones went skyward. There is a better market than ever for the good light horse and a poorer than ever for the poor one.

"What is the Department doing to better the breed of horses? Well, it has now three breeding stations, one for Morgan horses in Middlebury, Vt.; another for breeding carriage horses from American stock at Fort Collins, Colorado; the third for conducting experiments in breeding gray draught horses in Iowa. The Percheron is pretty well established here and is quite equal to the foreign bred. In Iowa we are crossing Shire horses and Clydesdales. There is no reason why a foreign-bred draught horse should bring more than one produced here."—From N. Y. Sun.

THE HOUSEHOLD

HOUSEHOLD SUGGESTIONS.

A hot shovel held over varnished furniture will take out white spots.

A little tea put in the starch used for brown linen preserves its color. Salt water is the best solution known for cleaning willow-ware and matting.

If cheese is wrapped in a cloth moistened with vinegar it will neither dry out nor mold.

To remove stains and discolorations from tinware, try rubbing with a damp cloth dipped in soda.

A solution of potash and water rubbed in birch will give a finish resembling rosewood when varnished.

The scum which is left by hard water may be removed from sinks, basins and tubs by kerosene or gasoline.

An application of lemon juice and salt in a good sun exposure is an old and effective remedy for fruit and rust stains.

Wet shoes should be stuffed with paper, which will absorb the moisture and prevent the shoes from getting hard.

To make crisp such foods as corn flakes or shredded wheat biscuits when the oven is not hot, heat an iron spider, remove it from the fire, put in the cereal and cover closely.

Before sweeping, sprinkle a few dust-cloths with water and roll them up tightly as you do clothes that are to be ironed. The cloths should be damp but not wet when used.

To clean white marble, put a lump of soda about the size of an egg into a pot containing half a pint of water and a teaspoonful of soft soap. Heat it almost to boiling and paint it on the marble while hot. Leave it on a day or two and then wash it off with warm water and a clean flannel.

Newspapers dipped in lamp oil are useful for cleaning windows.

The kitchen stove is kept bright and clean by rubbing it briskly after the cooking of each meal with old papers and this saves many polishings.

Crumpets.—Sift one cupful of flour in a basin, one-half teaspoonful salt, one teaspoonful cream tartar, one-half teaspoon baking soda, one tablespoon sugar, two eggs, and a cup of milk. Drop in spoonful on a hot griddle and turn when a light brown.

Vegetable Cutlets.—One large parsnip, one small onion, one tablespoon chopped parsley, one cup bread crumbs, one tablespoon butter, one teaspoon grated cheese, and a few drops lemon juice. Boil and press the parsnip through a sieve. Pour the milk boiling on the bread crumbs, then add the parsnip and other ingredients, with the yolks of two eggs. Make into cutlets, dip into the whites of eggs and fry in smoking-hot fat.

Little Boy—"I want a dose of castor-oil."

Druggist—"Do you want the kind you can't taste?"

Little Boy (anxious to get even)—"No, sir, it's for mother."

AGNOSTIC'S LORD'S PRAYER.

Is Interrogative in Form and Non-Committal in Thought.

Mrs. K. T. Woolsey, of Kentucky, has received word from the Agnostic Associations of Belgium and France that they have adopted her "New Lord's Prayer," which she delivered at the recent International Liberty League convention in Brussels, where she was the only delegate from America and the only woman delegate to the convention. The prayer is interrogative in form and decidedly non-committal in thought. It is as follows:

"Oh, thou eternal, infinite matter, force, mind or whatever thou art, that men call God.

"If thou art just and loving and inclineth to peace, if thou delighteth in the happiness and progress of thy children, why have the religions which seek to honor thee persecuted different creeds and soaked the earth with each other's blood?

"Why have they inflicted ostracism, ruin or death upon all teachers of truth coming into their power?

"Why have they presented an unbroken phalanx against every phase of social progress?

"Why have they championed the cause of despotism and denounced that of liberty?

"Why have they degraded and enslaved womankind?

"And all this in thy name!

"Oh, God, we beseech thee to so influence men that the benefactors of the race will be glorified and not crucified—that reason, unfearing, may walk the earth, that temples of worship will welcome honest and intelligent thought, that character may count for more than belief, that the human palm will reject the sword for the laurel branch of peace, that love may be the golden key unlocking all the gates of joy, that woman will be liberated, each man receive what he earns and all come to know that the rights of one are the rights of all, that wars and tyrannies and persecutions and robberies and hypocrisies may not prevail, in thy name.

"Oh, God, we now approach the province which is wholly governed by thy will. And we implore thee either to stop producing deadly microbes, tornadoes, earthquakes and volcanoes, (they torture and kill one-quarter of the people on the earth before the age of 6, one-half before the age of 16 and two-thirds before the passing from youth into complete manhood and womanhood, and inflict upon the lower species and animals agony and abbreviated life beyond computation), or to repeal the law that thy creatures shall multiply and replenish the earth.

"Oh, God, all classes and conditions of society have begun to ponder:

How can it be the world was planned.

With wretchedness on every hand.

By a Power wise and good?

For clear it seems to human eyes, That wisdom could plan otherwise.

And goodness surely would.

And we pray that when Judgment

Day arrives man may not claim he should be the judge and thou the one adjudged.

"In a spirit of reverence and humility and love, we place all this before thee, oh, God—if thou art God."—New York Telegraph.

The Retort Courteous.

An Irishman was sitting in a depot smoking when a woman came and, sitting down beside him, remarked:

"Sir, if you were a gentleman, you would not smoke here."

"Mum," he said, "if you wuz a lady, y'd sit farther away."

Pretty soon the woman burst out again:

"If you were my husband, I'd give you poison."

"Well, mum," returned the Irishman, as he puffed away at his pipe, "if you wuz me wife, I'd take it."

"If I can stop one heart from breaking,

I shall not live in vain.

If I can cease one life the aching

Or cool one pain,

Or help one fainting robin

Into his nest again,

I shall not live in vain."

—Emily Lowe Dickinson.

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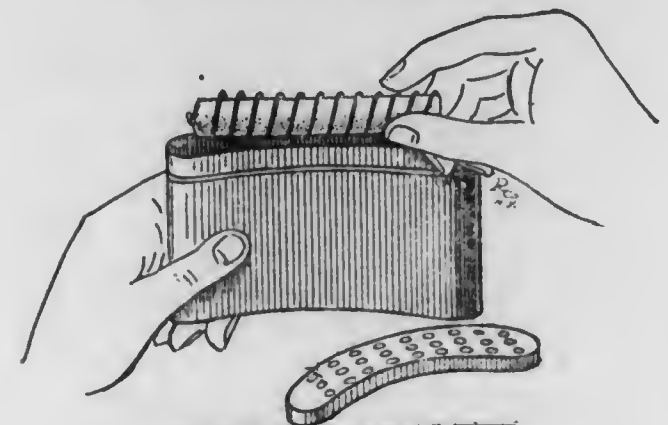


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The service is individual as well as general.

Every question growing out of the farm and farm life will be answered by experts without charge. No matter where a farmer may live or what his problems may be, all that is necessary to secure the most accurate solution of them, based on the latest scientific information, is to write out and send to the I H C Service Bureau the particular question confronting him. The answers will be returned promptly.

The experts engaged by the bureau have made a study of soils, fertilizers, rotation of crops, bacteria, climatic conditions, irrigation, animal husbandry, the care of farm implements and machines, etc. Their knowledge, experience and constant study and research will make the Service Bureau a valuable assistance to farmers, dairymen, fruit growers, and others.

The bureau will keep in close touch with and co-operate in the work now carried on by agricultural colleges and the Government Experiment Stations, and in addition the experts employed by the International Harvester Company of America will carry forward research work along independent lines.

EDUCATION.

Our Johnny is a pupil
In a public school, you know;
His class he leads
In stringing beads
All in a fancy row;
At writing he's deficient.
He can't spell even "cat."
But ah! he knows
Each flower that grows.
So what care we for that?

In mathematics Johnny
Is hardly any good,
But he can knit
A woollen mit
As well as Grandma could;
He doesn't know one hero
Or date in history.
But hip! hooray!
His blocks of clay
Are beautiful to see.

Before he's graduated
An awful lot he'll know.
And he can turn
The things he'll learn
To profit—maybe so;
But vet, somehow or other,
Before he quits, we hope,
He'll learn enough
"Old-fashioned stuff"

To drown this modern "dope."
PAUL WEST.



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E-Z SUCTION CLEANER.—\$7.50. Lightest, simplest, handiest. Satisfaction or money back. Duryea, Reading, Pa.

MAGIC CLEANER.—Make it yourself, costs only a few cents, removes spots, stains, grease, etc., from garments and furniture. Cannot injure the choicest fabric. Saves dollars. No home will be without it after first trial. Send 10 cents for receipt. Address Mrs. Coventry, 5971 Maple Ave., St. Louis, Mo.

MAKE YOUR OWN FURNITURE.—Write, Home Furniture Pattern Co., 404 Potter Bldg., Birmingham, Ala.

ELECTRIC WASHING MACHINE.—The "Domestic" Washes anything washable, quickly, clean. Without injury at trifling cost. Cash or installments. Send for circular. Domestic Equipment Co., 55 State St., Chicago.

SALE OR EXCHANGE.

WANTED TO EXCHANGE portable roller rink for automobile, 50x80 waterproof tent, 40x70 hard maple floor, 150 pair skates, etc. Rink now in operation, in excellent condition. Will invoice \$1,200.00. Hammer Bros., Lamoni, Iowa.

STATIONARY SAW MILL with novelty works and established trade. What have you to offer? Reason, other business. Box 302 Dresden, Ohio.

4-PASSENGER STEAM AUTOMOBILE, in good condition, \$200.00, or exchange for upright piano. Vallance Co., Elkhart, Ind.

MAKE OFFER for four unit Splidorf Coil, good condition. Will trade for small motor. T. H. Lawrence, Ogdensburg, N. Y.

EXCHANGE billiard table and accessories for good motorcycle. Write for particulars. Address M. Rogers, 515 North 64th Ave., Oak Park, Ill.

DEMOISELLE AEROPLANE COMPLETE; want roadster automobile. Slingerland, Howe Cave, N. Y.

WILL EXCHANGE my Peloubet Reed Pipe Organ, cost \$1,000, for automobile. W. J. Bailey, Madisonville, Ky.

EXCHANGE 6 CYLINDER CRANK Shaft for 2 H. P. marine engine or 12 inch engine lathe. Nicholas Stromer, Gillett, Wis.

MACHINERY AND TOOLS FOR SALE.

FOR SALE.—10 H. P. Mason steam engine, \$30.00; 10 H. P. Whitney steam engine, \$35.00; 4½ H. P. Locomobile steam engine, \$20.00; 10 H. P. Lane Steam engine, \$15.00. All kinds steam supplies. R. Roth, 1423 North Ave., Bridgeport, Conn.

FOR SALE.—One 1 H. P. Wagner, 110 Volt, alternating current, sixty cycle, 1750 Rev. good as new, cheap. Machinery Sales Co., 17 East Woodbridge St., Detroit, Mich.

FOR SALE.—A good 7½ Callahan vertical boring mill with one swivel head on rail; all

automatic feeds; \$550.00 cash. Full line of other machine tools. Western Machinery Co., 6th and Baymiller Sts., Cincinnati, Ohio.
1½ H. P. 2 CYCLE GASOLINE ENGINE, for pump and small machinery. Price \$30.00. J. H. Parden, Harrison, Ark.
Marine and stationary gasoline engines, 10-12 H. P., at \$84.00, including coil, carburetor, etc. Castings and drawings for sale of same. Richards Iron Works, Manitowoc, Wis.
TWO 2½ H. P. and three 4 H. P. Buckeye gasoline engines at cost to move immediately. The Osborne & Sexton Machinery Co., Columbus, Ohio.

MANUFACTURING MACHINERY.

DO YOU WANT to build small gasoline engines? We want to get in touch with some one who is, or can prepare to build two sizes of gasoline engines; largest weighing 800 pounds. Have complete patterns and drawings; splendid proposition to keep your factory busy. The Cyclone Drill Co., Orrville, O.
WE ARE PIONEERS in the manufacturing of Sheet Metal Goods, Pressed Steel Products, Metal Stamping, Dies, Tools, Models, Patterns, Novelties and Specialties. We manufacture and find a market for any good patented article. Chicago Model Supply Co., 1638 Clybourn Ave., Chicago.

IRON, BRASS AND ALUMINUM CASTINGS.—Metal Specialties. Patterns, Models. Polishing, Plating and Japanning. North Chicago Tool Works, North Chicago, Ill.

INVENTORS.—We will develop your inventions, make your models, dies, tools; also manufacture anything. Geo. Schwarz & Co., 123 Liberty, New York.

AUTOMOBILES.

FOR SALE.—7-Passenger Model G White Steamer, reupholstered, repainted, new top, electric lighted, speedometer, gas tank, every equipment. Will sell cheap. Apply 531 South Peoria St., Chicago, Ill.

AUTOMOBILES.—All models, lowest prices for immediate delivery—Buicks, Fords, Maxwells, Oldsmobiles, Cadillacs, Packards, and hundreds others. Two-passenger Runabouts, \$35.00; three-passenger roadsters, \$190.00; four-passenger Roadsters, \$250.00; five-passenger cars, \$295.00. All guaranteed. 5 per cent. discount and \$10.00 electric horn free. Write now for latest illustrated bulletin. New York Motor Car & Cycle Exchange, 215 West 125th St., New York City.

AUTOMOBILE INSTRUCTION, four weeks' course covering shop and road work—provision for out-of-town men. Send for booklet P. M. West Side Y. M. C. A. Automobile School, 313 West 57th St., New York City.

ELECTRIC AUTOMOBILES SACRIFICED.—unheard-of offer. Any standard make. Wood's, Baker, National, Columbia, etc. Any of these high-grade machines we will sell for \$100. Healey Machine and Battery Works, 916 E. 43d St., Chicago.

LARGE STOCK of used automobiles, must be sold this winter at very low prices. Catalogue for stamp. Rubel Co., Louisville, Ky.

MOTORCYCLES.

K. & R. TWO-SPEED conversion set, used less than 25 miles, will fit and belt-drive motor motorcycle. \$40.00, cost \$60.00. Set of special rear stays for use with above to fit Merkel, \$10.00, cost \$20.00. New M-M side car complete, \$50.00. 1909 M-M Magneto Special Motorcycle, excellent order, \$100. Callwell's Motorcycle Agency, 10 Colden St., Newburg, N. Y.

MOTORCYCLES.—Enormous variety American and foreign makes—Marshes, Indians, Bending Standards, low as \$25.00. All guaranteed. Immediate delivery. Send for large illustrated bargain bulletin. New York Motor Car & Cycle Exchange, 215 West 125th Street, New York City.

JUST PRINTED, ILLUSTRATED CATALOGUE of used motorcycles, all prices reduced this winter. Largest stock for your selection in the South. Enclose three cents stamps. Don't hesitate to write. Rubel Co., Louisville, Ky.

40 SECOND-HAND MOTORCYCLES, all makes, \$35 up. Each one sold with our full value guarantee. Tiger Cycle Works Co., 782 8th Ave., New York City.

FOR SALE.—Nickel-plated spokes and nipples for motorcycles at low prices. R. Roth, 1423 North Ave., Bridgeport, Conn.

MISCELLANEOUS.

CLERKS, TINNERS, MACHINISTS, Painters, Draftsmen. "Lay out" your own letters and figures; our E-Z System book. Teaches you in thirty minutes, not a stencil system. Price, \$2.00 prepaid. Southwest School of Letters, Waco, Texas.

FARMING A TRADE NOT SO EASILY LEARNED.

Agricultural Writer Says Ploughing Is A Technical Thing—Laughs At The Idea Of Any City Man Making A Living In The Country—Special Training And Proper Disposition Needed.

"Who may go back to the soil? Nearly everyone who knows nothing about it thinks he can farm," recently said F. D. Coburn, Kansas, Secretary of Agriculture, the author of such convincingly titled books as "The Beef Steer and His Sister," "The Hog's Happy Habitat," "The Helpful Hen," "Cow Culture," "The Horse Useful," "The Where of Wheat" and "Alfalfa's Affinity"—the agricultural genius who has been described as the most useful citizen of Kansas, in which State he has worked as a "hired hand" on a farm as well as having declined an appointment as United States Senator.

"Nearly every one who knows nothing about it," he said, "thinks that about all that is necessary to success is the injecting of some seeds into the ground in the gentle spring-time, with the result that he has but to garner a rich harvest in the mellow days of autumn. A more mistaken view could scarcely be possible.

Cannot Offer the Masses Any Hope.

"I think no greater disaster could come to the masses in the cities than to dump them out onto the farms. I cannot offer the masses, as they average, any hope in farming. All these people have in the main come as near finding their groove as they ever will. Most of this 'back to the soil' talk we hear is based on the ridiculous and wholly untenable theory entertained by so many dreamers philanthropically inclined, that 'any fool can be a farmer,' or that a man, however incapable of caring for a family otherwise, would make a living, if not a competence, by farming, when as a matter of fact success in the business of agriculture requires as much brains, thought, industry and perseverance, physical strength and length of hours as are necessary in any other pursuit. To win in agriculture a man must have a talent for it, and if he has talent he can, unless entirely a misfit, win in the city, and perhaps have from year to year more congenial surroundings, more comforts, a third less hours of labor and far less exposure.

"Proper plowing is a technical thing. The right kind of plowing is pretty near as technical as the right kind of bookkeeping. In three or four days, of course, a man could learn to muss the surface of the soil a little, but what he would do could scarcely be called plowing.

Couldn't Succeed With Cows.

"He couldn't even succeed with cows with any certainty. To begin with, if he had the price he would be helpless in the matter of selecting desirable cows and determining the quantity and quality of rations they should have for making the most milk. He would not even know on which side a cow is milked, and she might kick his face off while he was trying to find out. He wouldn't know how to milk until he learned

it as he learned any other operation, and having the milk he wouldn't know how to manage it for any purpose that would bring results satisfactory to himself, the trade, or the consumer. The same would be true of any other branch of farm life. Agriculture is a trade to be learned as much as is printing, plumbing, tailoring, telegraphy, carpentry, clerking; a fact which the reformer and the philanthropist seem constantly to overlook.

"But as to this back to the soil talk I know of no movement back to the soil that is out of the ordinary, however desirable such a movement might be for some people. It is probably a fact that in every normally constituted man there is a desire more or less pronounced to be identified with the land—the soil. This is illustrated by the fact that probably nine out of ten residents of the town or city look forward to a time when they will have a piece of land in the country and do more or less in the way of horticulture or agriculture, and at the very least spend their declining years and make a living by raising poultry and small fruits. The feeling of such people is that it is wonderfully easy to make a living in the country, where they can produce so much of everything they use or need and where little money is necessary.

Mistaken Idea.

"But the idea that people in the country do not work and work hard for all they have is a great mistake. The probability is that most of these people would not be adapted to country or farm life, that they would have neither the knowledge nor the experience that would enable them to accomplish with any degree of satisfaction or comfort the results they hope for.

"It is human nature to be more or less restless. The man in town thinks about the time when he will be able to move to the country. The man in the country and on the farm looks forward to the time when he will put behind him the labors and worries of his vocation and lead a life of comparatively elegant leisure in the town or city, something for which all his previous experiences and those of his family have entirely unfitted him. The farmer moves to town and early finds he is a misfit. The city bred man moves to the country and is lost in surroundings for which he is unfitted. Here and there some resident of the city finds his way to the country and the farm. It has always been so, but that there is any more of it in progress now than there was 10 or 20 years ago I seriously question. Theoretically I do not for a moment question the excellence of transplanting from the overcrowded cities and towns to the country a considerable percentage of their populations, but in practice I think it would be far from bringing the millennium that so many theorists think probable if not certain.

"As a rule it takes a farmer to succeed on a farm, just as it takes a good clerical man or office man to succeed in positions of that kind. A farmer can't move into town and go into an office and make himself indispensable, nor can you go out of one of those offices, and go onto the farm and make a success. The probability is that in five years you would

starve out and would be seeking your old position or something lower. Perhaps 15 Per Cent. Would Be Benefitted.

"Take the population of a large department store, for example, and set it down on the soil. What do you think the result would be? It would not be anything pleasant, I can assure you. Perhaps 10 or 15 per cent. of those who might try it would be benefitted.

"Every day people write me about coming to Kansas and want to know the best place or the best county in which to locate. I never advise—I can't. I know about these counties, but I don't know you. I don't know your temperament, whether you are industrious, lazy, ambitious, patient and persevering, whether you are properly balanced, or perhaps a ne'er-do-well. My answer always is: 'It doesn't depend on the county, the locality; it depends on the man, and you are a stranger to me; so I am unable to advise you.' There are some people who might be dropped down into the Garden of Eden, with everything at hand, and within five years they would be ousted by the Sheriff. There are others who could drop naked into the heart of Sahara and in five years would have the desert producing every luxury and themselves surrounded with all modern conveniences. That is the thing—the man. You can't fit square people into round holes. It has never been done and never will be. That is what makes true those things that I tell you; it is the variety in human nature.

Plenty of Farmers in the Future.

"The future faces no lack of farmers. There is no pressing problem in that. As farm life becomes more attractive, as farm conveniences increase, as the telephone has come and the rural delivery of mail and improved machinery, all of this will right itself. There is no necessity for all these prairies to be occupied forthwith. It is desirable to have parts of them available for your grandchildren and mine, and for their grandchildren. I don't see that anything essential is to be attained by having every 40 acres of this domain occupied and cultivated this year or next. This problem, if it really exists, will regulate itself in a wholesome and natural way. As there is need for it the farms will be cut up and sub-divided. There will be better farmers and more of them in the future than in any age of the world, because farming is to be made more attractive, more inviting and trebly remunerative.

"Many of our future farmers will come from the immigrants who are the peasants of Europe, who know and like farming. The man who has no capital to begin farming can rent the land and in many instances can rent the equipment, but he cannot rent the experience.

Hold on to Your Job.

"The suburban acre plan is a capital idea. Raise some chickens, milk a cow or two, have a garden—and hold on to your job; the acre fellow is likely to expand and become a real farmer.

"Normal and natural gravitation from the town to the country is a wholesome and healthy movement, all the time to be rationally encouraged, but any sudden and consider-

able exodus of people unprepared and unequipped for the uncountable vicissitudes they would encounter in unfamiliar country employments would mean nothing short of catastrophe. A few, as is constantly shown, would realize their ambitions and be gainers, but more, strange to all their surroundings, to the mode of life and the isolation, would in a brief time be only too glad to escape to the old environment, which, howsoever repellant to others, was life to them. In many ways the established farmer is enviable, but populating the country districts with city people as they average, would not be good for the country or the people."

THE BINDER SHOULD BE WELL TAKEN CARE OF.

Many Machines Left Exposed to the Weather—How to Oil Binders.

Of the large number of mechanical aids at the command of the farmer today the self-binder is, perhaps, the most important. Its place could not be filled by a score of men with cradles and rakes, and, if properly managed, it has greater efficiency and is much more subservient to the master's will more than are men.

Since the early use of the binder the necessity for great efficiency and capacity has steadily increased. Not only is the cost of labor greater, but the new soil formed at that time produced a strong, healthy straw that stood up well when ripe, and a delay in harvesting was not so serious. At present, on account of the ravages of rust and other diseases, the straw often breaks badly even before the grain is ripe, so that the profit of a crop is often dependent upon the despatch with which it is harvested.

Notwithstanding the fact that the success of an entire year's work may depend upon the binder, the neglect and abuse to which it is subjected by a large number of farmers are proverbial. It is not uncommon to see a binder stored away in the corner of the field where it was last used, or in some exposed part of the yard with the twine box full of expensive, pure Manila twine, and the reel hoisted as high as possible, as if it were desirable to have it thoroughly exposed to the breeze. By the time it is to be used again the master wheel will probably have sunk deep into the soil, while the pole and neck yoke are allowed to rest on the ground. Nature, as if ashamed of the deplorable shiftlessness of its co-partner, will often hide the evidence of his neglect by a luxuriant crop of weeds.

Binder's Life Is Short.

Under these conditions it is small wonder that the average life of a binder is short. While the farmer complacently measures its life in years, its real usefulness may be counted in days. A binder is used on the average not much more than two weeks a year and lasts about five years, which gives it a period of usefulness of approximately 70 to 100 days. That this time could be indefinitely increased by better care and management, and that neglect and mismanagement result in short lived machines, improper work and large expenses for repairs are obvious.

All old grease and dirt should be removed from the surface as well as

from the bearings. This can be done with kerosene and waste. The binder should be carefully oiled and all bright parts greased to prevent rusting.

After the season's work is over is also the proper time to repair and overhaul a binder for next year. At this time the operator knows or should know, all the defects of the machine and what it needs in the line of extras and repairs to refit it for the next season's work. If the machine is put away, on the other hand, without being given a second thought until needed again, the operator, if he still remains on the place, will have forgotten what the machine most needed. The result is that the binder is perhaps given a hasty inspection, which in a majority of cases fails to reveal anything, and brought out into the field with numerous small defects that could have been repaired at a nominal expenditure of time and money. If the farmer is too busy to attend to repairs immediately after the season's work is completed, he should at least find time to do the next best.

Proper Oiling.

Binders are often operated by inexperienced or careless persons, who, knowing nothing about the machine they are using, sit serenely in the seat and do nothing but drive. Such men are as surely out of place as they would be on an engine platform. A binder operator should be familiar with and understand the proper function of every part of his machine, and, what is more, he should be able to make all necessary adjustments and repairs without the aid of an expert. He must know where to oil, and how to oil. Many a good binder has been prematurely relegated to the scrap pile because of improper oiling. The man who gives his binder an oil bath when starting and then fails to oil again until it fairly screams for more, may succeed in using a great deal of oil, but his binder will soon wear out. All that does not get into the bearings does more harm than good, as it serves to gather dust and grit which will work into the bearings. The proper way to oil is to use a little at a time and often. All parts of the binder do not need the same amount of oil, and the operator should decide which parts, by virtue of their work, need the most and should give them frequent oiling, while other parts require only occasional applications.

Co-operation among farmers for the purpose of securing an equitable price for their products is one way of making farming pay and is to be encouraged. But, since the profit from farming is the difference between the selling price and the cost of production, an equally efficient way of securing the desired end is to reduce the cost of production. A great reduction can be effected by better care and management of such machines as the binder. If, through better care and management, the average life of farm machines could be increased by a single year a tremendous saving would be effected.—By Prof. Dolve, Agricultural College, N. D.

The Story In Brief.

(From the Austin Statesman.)

Once upon a time a Man found his Party at Sea and rocked a Boat to a Frazzle.

HAVE A COMPOST HEAP.

Every farmer should have a compost heap. Someone may ask what a compost heap is. It is a heap of rubbish suited to making fertilizer for the farmer's lands. It may well be considered second only to his supply of barnyard manure. American farmers have been altogether too neglectful with regard to the importance of the compost heap. On European farms it is a regular institution and contributes largely to the increased fertility of the farmer's soil and the greater size of his crops.

The time has come when farmers in our own country must use more industry and intelligence in manufacturing home-made fertilizers. E. E. Miller, in his new book, "Fertilizing for Profit," says:

"The South spends \$50,000,000 a year for commercial fertilizers, and the amount is steadily increasing—increasing proportionately faster, in fact, than is the average crop production per acre. In other words, Southern farmers spend \$50,000,000 a year for plant foods and then fail to improve their soils. This is true, not because commercial fertilizers are not good to use, but because they are used extravagantly and unwisely."

Now for a few words about the character of the compost heap. It is best placed near the barn and in a concave surface where its drainage cannot escape. Into this natural receptacle is thrown all waste manure, straw, leaves, and other litter that will decay and make humus or rich dirt. Night soil from the closet that has been treated with dry earth also makes a fine ingredient. If no manure is used, ashes from the house supply a good potash element, and muck from ponds or nearby streams may be carted in with profit. Corn stalks, weeds, grass, sods, and scraping of all sorts, have a welcome reception.

Some care and skill are required to make a success of the compost heap. It takes time and some mixing to get all the materials properly rotted and assimilated. The stuff must be kept moderately wet, and it may be necessary to have a cavity in the top of the heap into which the drainage must be poured back. It will not do to let the heap become dry, for then its ammonia or nitrogen element will largely escape into the surrounding air. Of course, rains will supply most of the water needed, but in a very dry time it may be necessary to carry or haul an additional supply. Those desiring further particulars may send to the Secretary of Agriculture at Washington, D. C., for Bulletin No. 21.

In this day of high-priced meat farmers should raise all the hogs they can. Of course, it takes corn to do so, but corn is cheaper now and the high price of pork will make a good return for corn. One reason for the scarcity of hogs, at present, is, of course, the lack of free range brought about by the enactment of no-fence laws. When hogs were allowed to run on the commons anybody—even the poorest man—could have hogs. They were usually of the razor-back variety and had a faculty for taking care of themselves. They rooted for worms, bugs and roots and later in the season feasted on acorns and nuts, being rounded off with a little

corn only to firm the meat and give in a better flavor just before killing time.

In those old days a pig sold at weaning time for not over 50 cents or \$1. Now they bring from \$3 to \$5. As net pork the hog then sold at 4 cents a pound where the price now ranges at from 8 to 15 cents. The old razor-back was mostly muscle and rarely weighed more than 200 pounds even at two years of age, where the lard-producing Berkshire now reaches 250 to 300 pounds in little more than one-third that time. One of our neighbors this year killed a hog of modern breed that at nine months and one day of age weighed 314 pounds. At average prices here it would have brought on the market \$31.40, which is about the price of a cow. That certainly looks like good money to make on a pig in only about nine months. It surely is better than waiting two years or two and a half to make the same on a cow. In the old razor-back days it took about two years to mature a hog as already indicated—at least in many cases—and even then it would not bring probably more than \$81 Times have changed and apparently greatly to the farmer's benefit. Of course, the cost of production is greater, but the selling price is even more so.

To raise hogs successfully requires some special thought and adaptability. Feeding is one of the main points. When the sow is carrying her pigs she must be fed for her own support and also to further the development of the fetal litter. The two features combined make a great drain upon her resources. She does not need to be kept fat, but should be maintained in good order with a grain ration containing plenty of the protein element. An excess of carbohydrates is to be avoided. In trying to keep the sow from getting too fat, the opposite extreme of keeping her too lean should be guarded against.

During the gestation period the brood sow should not have a heavy feed of corn. Possibly it may as well be not fed at all. Instead of it, feed wheat, oats, peas, beans, bran, barley, oil meal and other protein-bearing tissue builders. During the summer let her run on clover and alfalfa pasture or browse on peas, beans, and vetches. You can't starve a sow during the gestation period and expect a fine litter of pigs afterward.—Uncle Zeke, in "Farm and Home."

NATIONAL DAIRY SHOW NOTES.

It is announced by the management of the National Dairy Show that a particular effort will be made to appeal strongly to the visitor at the show who is unfamiliar with dairying and methods of putting dairy products upon the market. Particular emphasis will be placed on those features which instruct and interest him, without detracting from the educational features in which the dairyman is interested. The purpose of this effort is not only to please the uninformed visitor but to create in his mind an understanding of the effort and expense necessary to produce dairy products of good quality. He will then demand high quality and will be willing to pay the price necessary to insure it.

WILL SELL HERD OF FANCY CATTLE.

As Manager of Her Father's Estate, Mrs. Rumsey Will Sell Herd of Fancy Cattle and Discontinue Arden Dairy to Increase Dividends.

Newburg, Saturday.—Sheep will supplant cattle on the Harriman estate in Arden, according to a report circulated here to-day, when it became known that Mrs. Charles Cary Rumsey, who, since the death of her father, Mr. Edward H. Harriman, has managed his estate, was going to sell the large herd of Holstein cattle and discontinue the dairy branch of the Clove Valley Land Company. The milk produced by the dairy has been shipped to New York markets every day. The cattle will be sold at auction within a few days.

Recently Mrs. Rumsey has gone to Kansas, and it is said she purchased a large number of sheep. The land of the Harriman estate is adapted to sheep raising, and it is believed that Mrs. Rumsey intends raising sheep on a large scale. Mrs. Rumsey believes that she can make the estate pay a larger dividend next year than it ever paid before if her sheep raising scheme works out as she contemplates.

AVERAGE COW YIELD TOO LOW.

That something is needed to increase milk production in the average dairy cow of this country goes without saying. Instead of 3,000 pounds of milk per cow per annum, the average should be at least 5,000 pounds. Why a dairyman can be content to go on doing business with a 3,000 pound cow is hard to fathom. There is certainly no money in the milk producing business under such conditions. If the average cow just pays her way there is nothing lost at any rate. But the dairyman is not in business for the fun of it. Milking, caring for and feeding cows is not a pleasant pastime. It is about the most exacting kind of work a farmer can take up, and if there is no money in the business, he is foolish for staying with it.

But there is money in dairying, and big money, too, if properly conducted. If the 3,000 pound cow can be made to give 4,000 pounds, with the same care and feed, the extra 1,000 pounds will be clear gain. Or to put it in another way: If a 4,000 pound cow returns a profit of \$5 a year, a 5,000 lb. cow will return 20 per cent more profit, so on most "ad infinitum." The possibilities in this direction are immense. Records are being broken every day and the limit has not yet been reached of what the individual cow may do in the line of milk production.

A Relict.

A colored man died without medical attendance, and the Coroner went to investigate.

"Did Samuel Williams live here?" he asked the weeping woman who opened the door.

"Yassuh," she replied, between sobs. "I want to see the remains."

"I is de remains," she answered, proudly.

SIX MONEY-MAKING SYSTEMS FREE.

With each advertising course we give, absolutely free, the full and complete plan of six successful Mail-Order plans, with any one of which you can make big money.

Do you know how many "schemes" are being operated to-day on a Mail-Order basis? You perhaps would be surprised at the large number. We do not mean "fake" schemes, but schemes that are perfectly legitimate. At least one-half of all the advertisements in Mail-Order papers are of the "scheme" nature. You may not recognize the "scheme" part but it is there just the same. If you doubt this assertion, carefully read over the ads. in any Mail-Order paper and you will be convinced that the above statement is correct—that one-half of all the legitimate Mail-Order enterprises now being operated and making money are of the "scheme" nature.

Grit, energy, and a good scheme makes a combination that can't be beat. And a Mail-Order scheme is the biggest winner of them all. With one of the plans we outline there is one concern that uses—on this one plan alone—1,000 Ingersoll watches each week. Just figure out their profit! With another one of them there is one concern that made \$100,000 last year. We will say further that no plan is outlined that is paying others less than \$10,000 a year each.

As already stated, we intend to give, absolutely free, with each advertising course (and no one else can get them under any circumstances) the complete plan and details of six successful money-making Mail-Order systems.

YET IN ITS INFANCY.

The mail order trade is in its infancy, just as electricity was twenty-five years ago. Its scope is as extensive as that of commerce itself, and great fortunes await those who are shrewd enough to take advantage of the opportunities afforded. When one member of a family goes into the mail trade, he or she can secure the assistance of other members of the family in spare time, thereby making a great saving in clerical and other expenses. Many a profitable mail business is conducted in a home by members of a family.

ALL BEGAN IN A SMALL WAY.

It is a remarkable fact that all the great Mail-Order successes have had their beginning upon small capital; in fact, small capital at start seems to be a requisite.

A young lady in New Carlisle, Ind., a small town, was a stenographer in a law office up until three years ago. She embarked in the Mail-Order business, and now has eighteen persons in her employ. Her profits now amount to over \$300 per week.

There's a young lady in Boston, not more than 23 years of age, who now conducts a monthly home publication which is paying her \$12,000 annually, who got her funds from advertising and selling sachet powder through the Mail-Order trade.

QUESTIONS ASKED AND ANSWERED.

Do I need a license? Not required in any State, city or town.

Will \$10.00 start me? Yes, in a small way.

(Continued on page 18)

What do you recommend? ANYTHING may be sold through judicious advertising. My 6 (six) free plans tell you what you are most likely to make big money on, and they can be worked in city, village or country equally well, and they will start you on the right road to a fortune. I mean this.

Do I have to give all my time at first? Absolutely No. You can attend to your mail and orders in the evening and at your own home. Only a small room required. If you have a position you can keep it until your business becomes so large that it is absolutely necessary to quit your position, and not before.

Do you furnish six plans free and tell me what is best to advertise and sell? Yes, certainly, as I have stated before, and any one of which should net you \$20.00 to \$40.00 weekly, in clean cash, in a small way. Then you can build up your business by reinvesting profits in advertising, to thousands of dollars income every year.

Can your plan be used without advertising so as to make me money? Yes, in a small way, either in city, village or country one could make \$20.00 to \$40.00 per week with any one of the plans I furnish you.

A Complete Mail-Order Instruction Course, telling you exactly how to start and conduct a Mail-Order business, no matter where located. Above are extracts from Mail-Order Book.

This Course has been sold for \$10.00 but we will give it to you, charges prepaid, for twelve yearly subscribers to **Blooded Stock** at 25 Cents each. If interested send us the twelve subscribers' names and \$3.00, and we will send you Course of Instruction by return mail. Address,

MAIL-ORDER EDITOR,
BLOODED STOCK,
Oxford, Pa.

Mail-Order Book, sample copies and Blanks free.

As land values increase and farmers and dairymen come to more fully appreciate the worth of green feed in winter, the silo grows in estimation. Eastern farmers who keep cows or young stock of any kind use the silo more or less, to conserve for winter the value of both green grass and corn. Alfalfa makes an excellent silage, but its peculiar quality of retaining its green food value as hay when properly cured makes its ensiling much less a necessity. Alfalfa hay taken from the mow in February, green, appetizing and nutritious, falls little, if any, short of serving the purpose of silage.

—Book of Alfalfa.



The GUERNSEY COW
Her Dairy Products have Scored the Highest Quality and Best Color
Full information of this fine breed of GUERNSEY CLUB, Box Y, Peterboro, N. H.

GIVE AWAY YOUR COWS—if they wont breed. Abortion and Sterility are the Bane of the Farmer's Life STERILOID

Positively Prevents Abortion! Positively Prevents Barrenness and Sterility.

STERILOID heals, cleanses, strengthens the reproductive organs, allays irritation, and destroys the germs of abortion. Ordinarily, cows get with calf after one treatment. STERILOID prevents disease and keeps cows regular breeders. It is not an experiment; when used according to the simple directions it has never been known to fail.

PRICE \$2—Mailed postpaid, in plain wrapper.

Guarantee If STERILOID does not do all that we claim for it, we will refund the purchase price (no red tape).
MARTIN REMEDY CO., 308-408 Columbus Avenue, New York.
Reference: Colonial National Bank, New York.

**CLARK'S
CUTAWAY
TOOLS**

FOR ORCHARD AND FARM

All genuine "Cutaways" are intense cultivators and will increase your crops 25 to 50 per cent. Our Double Action "Cutaway" Harrow is a wonderful invention—can be used in field or orchard. Perfect center draft. Drawn by two medium horses will move the earth twice on every trip. We can prove it. "Intensive Cultivation," our new catalogue is free. Send for it today.

CUTAWAY HARROW CO., 506 Main St., Hingham, Conn.

**HIS
DOUBLE ACTION
CUTAWAY HARROW**

SAVE LABOR IN SHREDDING FODDER.

We have been shredding fodder for twelve years and have learned a few things about saving this valuable feed. Machines in this vicinity consume about 200 shocks per day, and it takes five teams and seven men to keep it up. The past five years we have changed this method at Lyndale farm, and save one-half the expense.

With the usual method of shredding careless workmen scattered much corn and fodder about the fields and yards. Then we must take our turn and shred when the fodder was as dry as tinder, breaking the blades into a mass of dust and worthless waste.

Now we engage ourselves during damp mornings and cool days hauling 100 shocks into the basement floors and just outside the barn place 100 more close by where the machine sets. With three men and not a team on the job we husk all day, for there is no stopping between wagons. Our fodder is all shredded while in the best condition, and does not break to pieces badly.

I run the blower myself, and keep the fodder evenly distributed in the mows, not tramping it nor beating it down, because it might mold. If the blower is set and run continually in one spot for a time the fodder will become beaten and molded.

For several years I have built up a rail pen where the corn from the long spout is dropped, and it is cribbed at once with no management of wagons nor scooping. It is later fed out or hauled to market.

HOW TO KEEP BUGS OUT OF BEANS.

I don't suppose there is any one thing that is asked about more in one year's time than, "How to keep weevil out of beans when stored away for the winter." As far as I know, there is only one sure cure; that is, fumigating with carbon bi-sulfide. This must be done when the beans are first put away for the winter. The eggs from which the weevil hatches out, are laid in the summer, in the

bean pod while the bean is yet soft and growing. It doesn't hatch, however, until in the winter, when the weevil eats its way out of the bean, leaving a characteristic hole.

When you first put the beans away in the winter, they can be fumigated and all the eggs killed without hurting the beans in the least. Carbon bi-sulfide is a heavy, ill-smelling liquid, which can be bought at any drug store at about 50c a pound. The fumes are very poisonous to insects, but not to human beings. It evaporates readily like gasoline, and like gasoline, is explosive, so you must not go around fire or a lamp with it. Put the beans in a tight box or can, put a couple of ounces on a saucer over the beans, then cover the whole thing over with a couple of blankets or something that will keep the air out and the fumes in. Leave it that way over night and you will never have any weevil in the beans.

Inside Information About Tanning Hides for Coats and Robes.

Your Cow, Steer and Horse hides when converted into fur robes and rugs are far better and cheaper than anything you can buy. There is no humbug about such goods. You know what they are when you furnish the material from which they are made. See the advertisement of the Crosby Frisian Fur Company, of Rochester, N. Y., in another column. These people—who are pioneers in this kind of work—are doing a large and ever increasing business in custom tanning, due to the fact that they not only understand their business, but treat their patrons right. See their advertisement in another column and if interested get their illustrated catalog.

COMMENTS AND JINGLES.

(From M. A. P.)

Squire's Daughter—By the way, do you spell your name with a large or a small N, Mrs. McNab?

Villager—Oh, middlin' large, miss.

CITY PEOPLE ARE THE REAL "RUBES."

Their Questions and Comments on Live Stock and Farm Produce at the State Fair are Enough to make a Horse Laugh.

For a long time it has been the fashion for city people to poke fun at the farmer when the latter is in a big city, but to an unprejudiced observer, the city man when out of his element is just as impossible, makes as many silly comments and asks as many "fool questions" as the most farmerish farmer.

"A city man about sixty years old, came through here," said one of the men looking after an exhibit of New Market Jerseys, "and, pointing to our cattle, said, 'Are those Guernseys or Dairy Shorthorns?'"

That's just a sample of the city people's remarks in the cattle barns. One woman doing the barns had no trouble picking out the bulls from the cows, because she was sure that any without horns were what somebody else called "gentlemen cows." Jersey cattle were given the name of practically every other breed. Many people asked questions that showed that they hadn't the faintest idea how milking was done. It was only natural that the young fellows in charge of the cattle should do a little "kidding," and one of them had no difficulty in getting a city chap to believe that "we milk that one with a wash-tub, and she usually fills it."

"Do you polish their horns to make them shine?" was what might be called foolish question 1111, and the attendant would be pardoned if he had answered, "No, to make them milk better." A man who was paring a cow's hoofs was asked in all seriousness by a woman, "Are you paring her nails?" And some people who saw a man milking by hand were quite taken with the way the "milking machine" worked. It seems hard to believe the man who states that he heard two women discussing whether a cow was milked by pumping her tail, but he swears that it's the truth.

Look for Size, not Quality.
"Anything big and fat takes their eye," said a man who, like all the other attendants found that it was simply size and not quality that attracts city people. "They don't see the good points of a calf, although they call it a 'pretty little thing.'"

Horses being seen in the city, the city folk don't ask so many silly questions about them as about cattle, but it was a surprise to some city people to find that horses are cleaned. And, as with the cattle, the attraction was size. One horseman summed up the city people's viewpoint by saying, "If he's a big horse, he's a good one."

It's size also that takes the city people's eye when they're wandering through the hog pen, although the women folk rave over the "baby pigs." The pigs of the between sizes may have all the good points possible for a pig, but to the city folk in general he's just a pig. And, as in the horse and cattle stables, the men looking after the pigs have hard work to keep from laughing at some remarks the city people make. All kinds of guesses are made as to the breed of the "grunters," and when the guessing contest gets too hot, the attendant settles everything with

some such remark as, "Oh, the ones in that pen are razor backs."

A "Short-horn" Sheep.

The attitude of the attendants was well stated by a man who was looking after his own sheep exhibit. "We don't mind giving all the information we can to the people who don't pretend to know," he said, "but we have no use for the know-it-all from the city. You hear a youngster say, 'What kind of sheep is that, daddy?' and the father answers, 'That's a Short-horn,' and proceeds to tell where the 'Short-horn' came from. The man is the head of the house. He's the main guy, and he has to keep up his reputation." City folk go looking through the sheep pens for Berkshires as well as Short-horns; indeed they get the breeds of animals beautifully mixed.

Seeing the metal tags on which sheep are registered, one woman said, "Oh, look! They put ear rings on the sheep to make them look pretty." It happened that a small breed of sheep were right next to a breed of large size, and the usual remark concerning the two kind was, "These are lambs and those are sheep."

"They think we are shearing the sheep when we are merely doing a little clipping," said a man who looks after some of the sheep. "Yes, the city people rave over the very big sheep or the very little ones. They make remarks that are too funny for anything, and they ask questions that you wouldn't believe possible. But the children are getting better. The youngsters are getting to know more, and I suppose it's because they soak in a little nature study at school."

Badly Mixed on Vegetables.

Among the exhibits of vegetables the city people rave over the big pumpkins, big squash and big cabbage. And the way they mix the names of the various exhibits makes one think of vegetable soup.

And so it goes all down the line of things that are from the farm. The man looking after the poultry said that he sometimes has to "go away and laugh" at some of the things said to him by the city folk. And the man who was talking bees to all who wished to learn about the busy little things, was somewhat surprised to have a city man proudly give utterance to this rich bit of wisdom: "If you hold your breath a bee can't sting you."

The farmer who stores potatoes has many more obstacles to overcome than the corn and grain growers. Figuring their loss therefore due to shrinkage, rot and other ways, a conservative estimate would place it at 33 per cent. This takes not even the chances of glutted market in 1911, which is not likely, however, to happen. It would then be as profitable for the grower to accept 50 cents per bushel in November as 75 cents next June. In other words, \$1 per bushel now is as much as \$1.50 in June.

We must study our own conditions. What facilities have we for taking care of our crop? To what use will the cash be put if we sell now? Many things determine our course of action. The best course, however, for the average farmer is to sell early.

Good manners is the first law of society.

"ROTS AND SPOTS."

Not Conducive to Quietude.

(From the Savannah News.)

The New York World prints a story that is not conducive to the quietude and repose of weak stomachs. It is to the effect that there is in that city a tremendous demand for rotten eggs. And what is done with them? Why, they go into pies, cakes and ice cream. "One thousand cases of rotten eggs go into food products in this city every day," says the World. However, the Health Commissioner is stirring up his inspectors with a sharp stick, so that there may be a diminution in this odorous traffic. And then the cake foundries will put up prices in all probability.

There Should Be Punishment.

(From the Macon News.)

The New York World has been instrumental in exposing a trade in rotten eggs carried on in that city with the knowledge and collusion of the chief food inspector and some of his assistants. One thousand cases of decomposed eggs go into food every day in that city, it is charged. The eggs are sold to bakers who use them in cake-making. Not only are the best customers for these eggs the wholesale dealers in bakers' supplies, according to the World's showing, but the demand is actually far in excess of the supply. * * *

It is to be hoped that if the World's charges are proved to be correct that the guilty persons will be brought to book and drastic measures taken to put an end to the traffic in "rots and spots." For, as the World says, "graver considerations than those of petty graft are involved in a form of swindling which trades on the health of citizens."

An Abominable Practice.

(From the Erie Herald.)

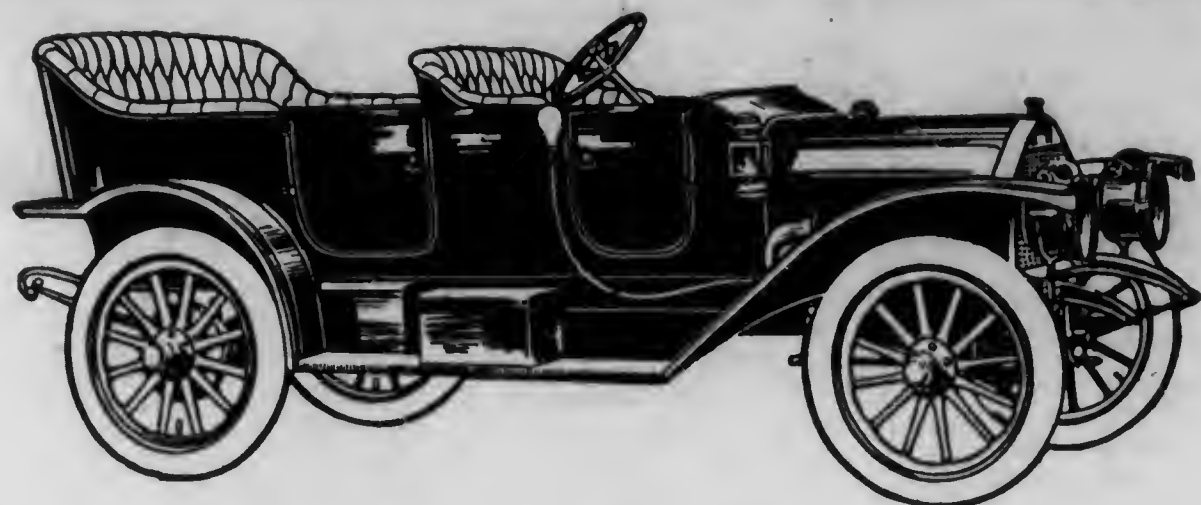
The rotten egg industry is one which has been engaged in in the city of New York, and is apparently one in which there was no small profit. Some of those engaged in the business apparently secured licenses to sell eggs for the tannery business and also to sell eggs for food. It was discovered that rotten eggs designed for use in tanning leather might also be used as a food supply, notwithstanding the supposed circumspection of the local health authorities. * * *

The New York World exposed the infamous business, and when the disclosures were made suspensions of attaches in the Health Department were made and it was incidentally established that some of the persons employed in the department were rather disposed to connive at the most abominable illegal practices.

An individual that will sell rotten eggs knowingly, should spend some time in jail, and be compelled to eat one rotten egg daily for seven days.

The man who spends much time in his garden or orchard or field won't have to spend much time in the market when he gets ready to sell.

Half an ounce of oxalic acid to a pint of salt water makes an excellent solution for cleaning and brightening brass.



Enger "40" Torpedo--\$2150

Modern Methods Reduce Cost

The Enger "40" Was Impossible Before
Enger Conditions Were Created

MODERN METHODS— VS. MANUFACTURING COST

Every great reduction in the cost of a manufactured product is largely due to the introduction of modern organization—and modern machinery.

A system built on these modern principles is responsible for the Enger "40."

Such a car could not be built under any other system.

A new factory—a new organization—a new car—plenty of capital—and the world's automobile knowledge and experience—brought out the Enger "40."

These ideal conditions are responsible for the Enger "40"—which has set a new basis for car value.

ANY CAR WOULD BE BETTER IF ENGER-BUILT

The Enger Motor Car Company realized they would have to build a good car to win—with so many other makers in the field.

That is why Enger manufacturing conditions were established.

These conditions made these specifications possible in a \$2000 car—40 horsepower—116 inch wheel base—big wheels—and a strong, roomy, but light weight body.

There are six Enger models—the Torpedo 40—the most beautiful body design of this popular type—the five-passenger touring car and roadster are most luxurious in room and comfort.

They are in a class by themselves. All 40 H. P.

The Enger Motor Car Co.,
Gest & Summer Sts., CINCINNATI, OHIO.

THE TIME WAS RIPE

Motorists welcomed the Enger "40." It was automobile news to them. For it gave them a new insight into car values—and into the prevailing conditions of a great industry.

All owners of small, medium-priced cars want big cars—with more power—that they can buy for a fair price.

The Enger "40" is the only solution.

Enger cars meet every desire. The line is complete.

We offer a 5-passenger touring car (fully equipped for only \$2000—a 4-passenger Torpedo for \$1750—a 4-passenger Touring car for \$1700—a 40 H. P. Roadster with Torpedo front for \$1650—the Enger Roadster for \$1600.

These models are ready for delivery.

LET THE ENGER "40" BE YOUR CRITERION.

In judging other cars let the Enger "40" be your criterion.

Then we know if you stick to the standard set by the Enger—by which you gauge the worth of other cars—you will buy an Enger "40."

It will eliminate cars far above its price.

This comparison—and investigation—will convince you that the Enger "40" has all the soundest principles of motor construction—and all the proven late ones.

When you realize the wonderful value in this car—you will buy the Enger—built under modern cost-reducing conditions.

Let the Enger "40" be your standard. Send for catalog today.

THE BLOODED DAIRYMAN AND POULTRY RAISER



FEBRUARY

HUMANITY.

It's the bad that's in the best of us
Makes the saint so like the rest of us!
It's the good in the darkest-curst of us
Redeems and saves the worst of us!
It's the muddle of good and badness,
It's the tangle of tears and gladness,
It's the lunacy linked with sanity,
That make and mock humanity!
—Arthur Stringer.

Volume XVI

Number XII

PUBLISHED MONTHLY AT
OXFORD, - PENNSYLVANIA
Fifty Cents a Year One Dollar for Three Years

February
1911

Blooded Stock, The Eastern Farmer, Dairyman and Poultry Raiser February, 1911

SUBSCRIPTION—50 cents a year; three years for \$1.00. Single copy 5 cents. Discontinued at end of paid subscriptions. Samples on application. Canada subscriptions 12 cents extra. Agents wanted.

SUBSCRIPTIONS—Can be sent at any time and will begin with the current issue unless otherwise specified.

HOW TO REMIT—Send money by Postal Money Order, Express Order, Bank Draft, or Registered Letter. One and two cent postage stamps in good condition accepted for small amounts.

CHANGE IN ADDRESS—When ordering a change in address be sure to give former as well as present address.

ADVERTISING RATES—15 cents for each agate line, each month. 5 per cent. discount for cash with order. Average seven words to a line. Fourteen agate lines to an inch measure.

N. Y. OFFICE—150 Nassau Street, R 1829.

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Entered at the Post-office at Oxford, Pa., as Second-Class Mail Matter, May 27, 1899.

OF INTEREST TO YOU

THE VOICE OF THE PEOPLE IN FORTY LEGISLATURES.

To the members of forty State Legislatures now in session the voice of the people is calling for the election of United States Senators by direct vote and for the ratification of the Federal Income Tax.

The movement for these two amendments to the Constitution is a movement of popular revolt against political and economic monopoly and the usurpation of privilege.

In practical effect these measures do not seek to change the Constitution, but to vindicate its principle and restore its power.

That the American people are in motion toward a revival of self-government and emancipation from monopoly was clearly shown by all the returns of the late November elections.

And you, gentlemen of forty Legislatures, should understand that the mandate of the people in these constitutional matters deserves better to be listened to than all the bargains of bosses or the clamor of committee rooms.

When the people start out to amend the Constitution of the United States they move on a plane that dominates the jurisdiction of Congress, the Chief Executive and the Supreme Court. Their action is absolute, so far as human beings are concerned. It is subject to God, to the immutable facts of Nature, and to nothing else.

You will make a grave mistake if you deal with the Income Tax and with the people's right to choose their own Senators as if these were party questions.

They are national aims. They belong to a political sphere that is above all parties. And they have a momentum sufficient to overturn any political organization that opposes them.

The Judiciary Committee of the Senate has reported favorably on the popular election of Senators. The same thing happened once before, and nothing came of it.

For a whole generation the Senate has stubbornly refused to move in this matter.

It cannot now be depended on to act from any sense of right or reverence for the public will.

Its hand must be forced. Upon the demand of four more State Legislatures—to add to those that have already spoken—the Senate and the House will be compelled by the fundamental law of the land to call the Second Constitutional Convention of the Republic.

Such a convention would have power to frame a constitutional amendment providing for the election of United States Senators by direct vote of the people.

It would also have power to re-frame the Federal Income Tax Amendment, if that should be thought necessary.

Such amendments would, beyond all reasonable doubt, be ratified by three-fourths of the States, and would so pass into the fabric of the Constitution.

It is because the people have the power to thus amend the Constitution, in spite of the Senate, and because they have, by the votes of twenty-seven legislatures, already evinced their willingness to exercise such power, that the Senate is now compelled to deal respectfully with the resolution that has come from its Judiciary Committee.

The Income Tax Amendment has already been ratified by the legislatures of Alabama, South Carolina, Mississippi, Oklahoma, Kentucky, Illinois and Maryland.

Of you men who sit as representatives of the people in the forty legislatures now in session the people require that one of two things shall be done before the Spring comes.

You should either deliver to us the two amendments duly ratified, or you should complete the call for a Constitutional Convention.

The people prefer the former alternative. And it is in your power to give them that.

OUR ADVERTISERS—We believe that every advertisement in this paper is backed by a responsible person. But to make doubly sure we will make good any loss to paid subscribers sustained by trusting any deliberate swindler advertising in our columns, and any such swindler will be publicly exposed. We protect subscribers against rogues, but we do not guarantee to adjust trifling differences between subscribers and honest, responsible advertisers. Neither will we be responsible for the debts of honest bankrupts sanctioned by the courts. Notice of the complaint must be sent us within one month of the time of the transaction and you must have mentioned **Blooded Stock** when writing the advertiser.

EDITORIAL DEPARTMENT—The editors are always glad to examine manuscripts suitable for publication in this magazine. Photographers are invited to submit photographs of subjects pertaining to any phase of farm life. Stamps should accompany both manuscripts and photographs to insure their return, if they are not accepted.

You can compel the Senate to pass the resolution of its Judiciary Committee, since the Senators now in office are your men. It was from your bodies that their commissions were derived.—Editorial from New York American.

VOX POPULI.

Ask your children what that means. In good old English it is, the Voice of the People.

The voice of the people is being raised in a way that will be heard by the powers that be. This has almost ceased to be a representative government. The people have been crying out against they know not what. Only an echo came back to show them that a great wall divided them from the seat of government and their heartfelt desires.

This great wall in Special Privileges, erected by the people themselves for their lord and master, the Interests. Long have they toiled, making bricks without straw, feeling with shame the stinging, insulting query—"What are you going to do about it?"

Less than a year ago these few money kings through their stool pigeons in Congress, laughed to scorn the efforts of the few insurgents who tried to repeat in the halls of Congress the voice of the people. "Have we not a Secretary of the Interior, and an Attorney General? Have we not the political bosses of both parties? What fear have we of a few barking dogs?" said they.

But ere the year had passed these selfsame Interests have begun to feel the wall of Special Privileges quake. Like the boastful citizens of Jericho they have begun to wonder what all this marching about their stronghold means. Some day a shout of the people will bring down this wall of Special Privileges as did the shout of old bringing down the walls of Jericho.

The Interests no longer laugh to scorn the speeches of the enraged people. They have begun to see a be-

BLOODED STOCK for February.

ginning to an end. The day is not many years hence when the people will sit in the seats of power and the Interests will be humble servants of the people.

But that day will not come until some radical changes have been made in the methods of choosing our rulers—our Congress and our President. We must get back to a government of the people by the people. We've got to elect the president by a popular ballot and nominate him in the same un-influenced way.

National conventions are a farce of public will in choosing candidates. The Interests pay the campaign expenses and for that privilege demand the right to name the candidates and write the platforms. They elect whom they will. And so on down the line in those states where senators are not chosen by the people, or officers by that modern stronghold of the people's rights—the direct primary.

Haste the day when we get a line of recall upon the supreme judges who hide the intent of the law behind legal technicalities and ancient precedent. Law is but an expression of common will. When distorted into the expression of a small minority it is time to call a halt.

Some day soon we will know why the will of the people has not been heeded. There need be no radical changes in the law. A few changes in the personnel of Congress and the judicial benches and the voice of the people will be quickly heard.

PARCELS POST AGAIN.

If an express company can make nine hundred per cent. on its investment in the state as is the case in Iowa, it is about time that exorbitant rates be declared illegal or that a parcels post be established that will handle the small package business.

We are a lot of chumps to stand such a thing as long as we have without protest. Maybe you think you have protested. You've read some warm editorials in the farm press on parcels post and you've been convinced that the robbery should be stopped—but what have you done to stop it?

The senators and representatives in Congress are not going to pay any attention to you until they have to. They get a flood of letters from the merchants appealing to them to not vote for a parcels post. And they get no letters from you farmers asking or demanding that they vote for a parcels post. What would you do in their place? Would you get excited over a parcels post bill if no one seemed to want it? The politician likes too well to appear to please the people. So he naturally sides in with the majority of kickers. There are more farmers than merchants and you could have a parcels post bill pass the next session of Congress if you would get busy and lick postage stamps.

It doesn't do any good to sign petitions. Sign a postal card or letter you yourself have written and you will make them take notice. Don't follow some form recommended by a farm paper. Get up your own letter in your own way and tell them what you want and that you are looking to them to do their duty.

When you've done that you will get a letter from Washington. You'll get a personal letter from a real live senator or representative—or his

clerk. Send me the replies and let's see what can be done to help you get a parcels post.

"Vox Populi and Parcels Post Again" are editorials from the February issue of "Successful Farming" and they are so good that every farm paper should reprint and give due credit. Now we wish to add that Congressmen and U. S. Senators as well as the Judiciary are human beings and liable to err. When your Congressmen and Senators do not vote right on popular measures "spank" them by a letter at a cost of a 2c stamp. They often need it. B. S.

BEETS BEAT GUNS FOR FIGHTING OUR FOREIGN ENEMIES.

Pumpkin and Carrot Better Than All Our Ornaments, Prof. Knapp Tells the Republican Club.

BUT A TREMENDOUS LOSS FROM BAD FARM METHODS.

Other Experts Say "Back to the Farm" Movement is Unsound, Even Dangerous.

"There is no such thing as bad soil in the United States. The matter is, there is a poor man on top of good soil."

"When I am asked how to apply fertilizer, I say put one half on the man and the other half on the soil."

Those two ideas were flung at his hearers at the Saturday luncheon of the Republican Club yesterday by Prof. Seaman A. Knapp, chief expert of the Department of Agriculture. There was delighted applause by the biggest crowd the club has held at such a meeting this year. Prof. Knapp came as the representative of Secretary James A. Wilson to speak on "From the City to the Farm."

"The retention of the boy on the farm is a much more mixed problem than we apprehend," Prof. Knapp said. "It is impossible to keep him there if he believes he can do better elsewhere. The problem is to make the farm so attractive that he'll stay there. But the almighty dollar eventually controls."

Loss by Lack of Progress.

"The trouble with farm life is that while the cities have adopted modern methods the country has been stationary. There has been very little progress in farming methods compared with those in business and manufacture."

"There are a billion acres of land on which there is constant loss by erosion, improper tillage, floods, storms, etc. Placing this loss at \$1 an acre, a conservative estimate, a billion dollars is lost to the country each year that could be saved if proper methods were used."

Laying down the proposition that folks are slaves to fashion, not only in clothes but in food, the expert said:

"We are not fed according to the philosophy of what will produce the best results, but according to the dictates of our appetites. If the people of the United States would only save \$20 a year aniece on their food and clothes, which could easily be done, it would mean that the country would benefit \$1,000,000,000 a year. The average life in this country is thirty-three years. If properly fed

and clothed there is no reason why the average life of the individual should not be increased to fifty years. The increase of just one year of life would mean a saving to the people of America of \$5,000,000,000 a year."

Work in the South.

As remedies for the present conditions, Knapp said, farms should be run on a business basis, just as are manufactories, and that the only way to teach this was through personal contact. Along this line, he said, the Department of Agriculture has put a representative in every district of the South; has organized a department for the instruction of boys, with an enrollment of 46,225 at the end of last year; has organized girls' clubs, where the proper canning of farm products is taught, and has taken means to help farmers' wives.

Another conclusion Knapp enunciated was that "gardens are at the bottom of the high cost of living." He said there are 25,000,000 children idle who might be producers if they only were taught properly to till a garden.

"And this is not an expensive job," he said. "If they would only give me one-half of one battleship I could put demonstrators in every county in the country. I can fight off more foreign invaders with a pumpkin, a carrot and a beet than with all your armaments."

Two Kinds of Farmers.

Prof. L. H. Bailey of Cornell, Chairman of the Rural Life Commission, and Dr. Josiah Strong Cook took the view that there never could be a "back to the farm" movement that would be successful, because such a thing was wrong economically. Bailey said there were two kinds of farmers, the horny handed and the velvet handed. "The former," he said, "are likely to water your milk; the latter will water your stocks. The 'back to the land' movement is politically, financially and economically unsound."

"There is needless alarm over the movement of the country population to the cities. We have passed through the rural phase of our civilization and we will never again be a rural population."

Dr. Strong said he was convinced the "back to the farm" idea was absolutely fallacious.

"No improvements in the conditions of farming can make men go back to the soil," said he. "Let us not spend time, strength and money in fighting the inevitable. 'Back to the farm' is a foolish, a dangerous cry. The supreme problem of the times is the problem of the city."

Prof. G. T. Powell, President of the Agricultural Experts' Association, also spoke.

A STRANGE SITUATION.

"Humor is a funny thing," said Binks.

"It ought to be," said the philosopher.

"Oh, I don't mean that way," said Binks. "I mean that it is a strange thing. Now, I can't speak French, but I can always understand a French joke; and I can speak English, but I'm blest if I can see an English joke."

"Most people are," said the philosopher.

"Are what?" said Binks.

"Blest if they can see an English joke," said the philosopher. "It is a sign of an unusually keen vision."—Harper's Weekly.

HORSES.

There are two classes of horses, light and draft.

A draft horse should weigh 1,700 lbs. or better. A horse working in the city must be heavy. The most profitable horse for the farmer is the draft horse. They must be heavy, the muscle and bone large and strong. The important things to consider are the forearms, weight, and quality. By quality we have reference to bone, hair, skin and head.

The old saying, "No foot, no horse," is true. An animal must have underpinning to be a good draft horse. The foot on a draft horse should be large and wide at the heel. The frog in a horse's foot acts like a buffer or a rubber pad. A horse should be shod so that the frog touches the ground. The feet always will be noticed when buying a horse. A sloping pastern is better than a stubby foot. The knee should be a broad, clean, supported joint. Horses' hocks should not be far apart and square; a round hock does not wear as well as a broad square one.

Horses should have heavy muscles and a good collar bed. The loins should be short, strong and heavily muscled. Hind legs should not be too close to the front legs. A horse should have a big middle, with a long, round rib; legs and feet should be square under the body. If the feet are too close together and not square under the body, they are "bunchy," and the animal is an awkward mover. The head should be wide between the eyes, with a full forehead. The Roman nose horse is characterized as being a very strong one. There are many breeds of horses; they are: Percheron, Clydesdale, Shire, Belgian.

The Percheron is a native of France, of a black and gray color, is a good active draft horse, with a clean leg and is not very hard to take care of.

Clydesdale, a native of Scotland, with a white splash on face and ankles; has feathered or hairy legs, and is not very easy to take care of.

The Shire is the biggest horse known; has a large amount of bone, and weighs heavy; has long hair or

fringes on its legs, and has a very long mane; originated in England.

The Belgian draft horse is heavy bodied, thick set, short quarters, short-legged, and compact horse, with a good deal of spirit, but sluggish in action. They are of a roan, chestnut, or sorrel color, and an easy keeper and feeder.

THE HORSE'S MOUTH.

A colt's mouth does not ordinarily require attention until he has reached his second year. By the time the youngster is one year old he has on each jaw, upper and lower, six front teeth, or incisors, and six grinders, or molars.

Between the second and third years a horse discards 12 teeth in all, which are replaced by permanent ones. These are the middle incisors and the first and second grinders on each side. During this time very serious difficulties may be encountered. Frequently an incisor will fail to loosen and be tipped forward by the incoming tooth until its sharp edge lacerates the lip. The wound may become infected and extremely swollen and sensitive and the animal be unable to chew because of pain. The same applies to the back teeth—one may fail to be shed, and the permanent tooth is likely to push the temporary grinder out so that the cheek is severely injured. An animal may rapidly lose flesh or actually starve to death from such an occurrence.

The third grinder is replaced at three and one-half years. This baby tooth frequently fails to drop off, forms a cap over the permanent one, and is likely to keep other teeth from grinding properly or otherwise interfere with mastication.

A horse at five years of age has a so-called full mouth. This means that all his teeth are permanent and in full wear.

At one time, before the horse was a servant of man, he was provided with a full set of teeth, that is, there was no space left between the incisors and the molars. It is not infrequent to see a very small tooth just in front of the first grinder. This is a vestige of the "wolf tooth." It does no harm and has no ill effect upon the animal's eyes, as is sometimes claimed.

The grinding surface of the molars normally wears in an oblique fashion, so that very sharp points form on the outside of the upper teeth and on the inside of the lower. These should be carefully removed. It is probable, however, that in most cases too much is taken away and the grinding surface of the tooth is injured. A horse's mouth should be dressed once every year, and, as has already been intimated, the young horse should be watched lest some irregularity in shedding cause him a great deal of suffering and perhaps cost his life.—H. E. Kingman, Colorado Agricultural College, Fort Collins.

Mange is a parasitical plague that is highly contagious. It may be spread directly from one animal to another or by the use of utensils that have been in contact with an infected animal. When it is discovered that a horse has the mange it should be isolated and the stable appointments disinfected to prevent the spread of contagion.

BLOODED STOCK for February.
HEAVY ANIMALS IN DEMAND.

Large work horses are preferable on the farm and in the market. The trim roadster is not in the demand as he was formerly, and the driver and the coach, once the favorite in the cities, is being crowded out by the automobile.

On the farm it is different. Farms, it is true, are being cut up and made smaller and the gasoline engine is supplying much farm power and even the auto is making its way into the rural districts, still the farm wants the heavy horses as does the city markets. The Belgians, Shires, Clydesdales and Percherons are always in demand and the young horses of these breeds command very fancy prices.

AN OLD THEORY.

In a lengthy article on mules in the Wisconsin Farmer we find this statement:

"There is one point in mule breeding that is perhaps not as much considered as it might be, and that is that much of the 'mule look' in the mule can be tempered and improved by first breeding the mare to a stallion, having her first colt by him, and then afterwards breeding to the jack. It is an undoubted fact that the first offspring greatly influences subsequent ones. For instance, breed a mare first to a jack and you will undoubtedly get a fine mule as the result. Afterward breed even continuously to a stallion and every one of the mare's progeny will have a very noticeable mule look, no matter how fine the animals may otherwise look. By reversing the operation, the appearance of the mules will be greatly softened and improved, and the value consequently increased."

Is this true or is it merely imagination? Science fails to agree with the theory held by this mule breeder. What do other mule-raisers think about it?—Editor's Note.

ALFALFA FOR HORSES.

One of the foremost horse breeders in America, who constantly maintains upwards of one hundred head of various ages, writes this: "In my experience of twenty-five years in pasturing horses on alfalfa, results have convinced me that it produces more bone, muscle and blood in horses in less time than any other pasturage with which I am acquainted. But I believe it profitable in raising the best horses to use also a moderate grain ration, to stimulate rapid growth and early development; my horses, however, have shown no ill effects from pasturing on alfalfa without grain, or other feed, and I have found such pasturage conducive to health and prolificacy, maturing animals equal for service to any reared otherwise. I have raised three-year-olds grown on alfalfa and a light grain ration to exceed a ton in weight, carrying all the good qualities of the breed to which they belonged. Further, I find using alfalfa as a horse pasture a much more economical method of raising horses than any other."—Coburn's "The Book of Alfalfa."

BLOODED STOCK for February.

SKIM-MILK FOR COLTS.

An inquirer has asked if skim-milk would not be a good thing to give to a colt after it has been weaned. This is a line in which the writer happens to have had some personal experience. The answer is that, if proper precautions are taken, it is just about the best thing likely to happen to the colt. Too much skim-milk does not agree with a colt, and may cause it to scour, just as it would a young pig or a calf. Sour milk does not agree with a colt, for horses of all ages are just about as subject to fermentative indigestion as any other domesticated animal. It does not do to give the colt too much skim-milk at any time, but especially when it is first fed. Otherwise, as the saying goes, "skim-milk is all right." Commence by giving the colt only a little bit of skim-milk as the fall advances, cool weather will assist in keeping the milk fresh, but if fed directly from skimming so much the better. If the milk seems to agree with the colt, gradually increase. Give the colt all of the crushed oats it will eat, as well as clean, bright hay or grass, but do not overload with skim-milk to the scouring point.

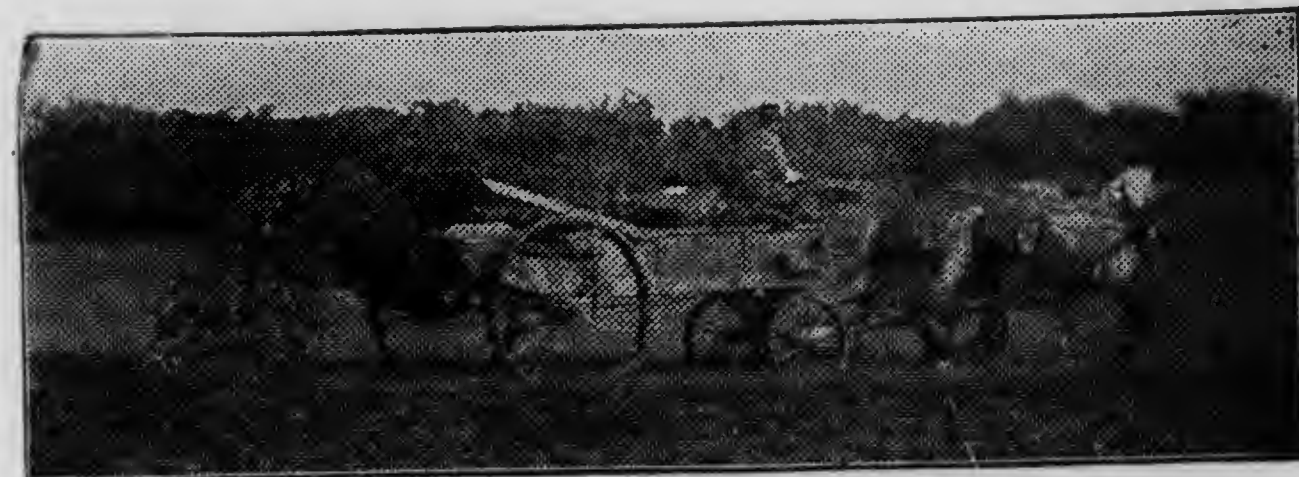
Skim-milk is not only good for colts, but for older horses as well. It will make a visible difference in the way in which a horse will put on flesh just about from the start. Gains in horse-flesh are just about as valuable as gains in pork, beef or mutton, and fresh, pure skim-milk can generally be used to advantage in making them.—Canadian Farmer.

THE USE OF BLANKETS.

The intelligent use of blankets without a doubt adds to the comfort of horses when working about the farm during the cold weather, says a writer in the National Stockman and Farmer. However, opinions may differ regarding their use in the stable. There would appear to be little room for argument in the case of the team engaged in different kinds of hauling when the thermometer registers near zero or a cutting wind is blowing. The animal on the move does not require protection, but at least half the time when engaged in work where a load is put on the team is standing still, sometimes for half an hour or more at a time. Then it is that could the horse speak he would express appreciation for the thoughtfulness of his driver in throwing over his back a good warm blanket.

In our cities the custom prevails of providing protection from the cutting blasts and storms of winter for teams engaged in slow work about the streets. The big drafters, attached to the coal wagons wear neat blankets day after day. The truck horses are similarly provided for. Many delivery men follow this example, and especially on stormy days we see their teams wearing rubber coverings, as well as the drivers, a sensible idea, certainly. Many of the milkmen also have their teams protected from inclement weather in the same manner.

There are blankets manufactured for this special purpose, but the lack of these need not deter any driver from exercising proper care of his team. An ordinary blanket will do as well. For any work where the gait is not faster than a walk the

AN IHC MANURE SPREADER MEANS
NEW LAND ON THE OLD FARM

THOUSANDS of people during the past year paid fabulous prices for new land—gave up their savings and their homes and moved into unknown country just for the sake of securing more productive property.

Hundreds of farmers found a better plan. They stayed at home and invested a small part of what it would have cost them to move to the new country in an IHC Manure Spreader.

Now in leisure time during the winter they are returning to the soil the rich fertility that has been drained from it—making new land out of old—putting it into condition to yield bumper crops.

With an IHC Spreader the manure can be distributed in the proper amount required by the condition of the soil. A light coat, where land is good, a heavy coat where it is most needed.

IHC Manure Spreaders have many exclusive features which you ought to know about. • Years of successful service has shown their superiority. In buying an IHC machine you are assured satisfaction for they are backed by a company that cannot afford to risk its reputation by offering you anything but the best.

IHC Spreaders are made in three styles
**Corn King—Kemp 20th Century—
Cloverleaf**

in sizes ranging from 30 to 70 bushels capacity.

Corn King and Kemp 20th Century Spreaders are of the return apron type—Cloverleaf Spreaders have endless aprons. Lime hoods for spreading lime and drilling attachments for distributing manure in rows are furnished on special order.

Let the IHC local dealer tell you all about IHC Spreaders and how you, too, can turn your manure pile into money with one of these simple, efficient machines. Catalogues can be secured from him, or, by writing for them.

INTERNATIONAL HARVESTER COMPANY
OF AMERICA
Chicago (Incorporated) U.S.A.



IHC Service Bureau
The Bureau is a center where the best ways of doing things on the farm, and data relating to its development, are collected and distributed free to every one interested in agriculture. Every available source of information will be used in answering questions on all farm subjects. If the questions are sent to the IHC Service Bureau, they will receive prompt attention.

cover may be buckled about the neck as usual, and folded over the hames, leaving the back and hips bare when in motion. Then when a stop is made it takes a moment to spread it in place and refold again when the team is started. This is easier than to completely remove it every time and replace it again.

In hauling manure, ice, wood, or other slow work about the farm, where a team stands a good share of the time, the use of blankets is to be recommended. From a humanitarian point of view they are absolutely essential if the team is to be made comfortable on a cold day. From an

economic standpoint, the dollar and a half represented in a blanket suitable for this use will be more than saved in the feed bill before the winter is over.

A DREAM OF OPULENCE.

I'd like to be a plutocrat
With millions in control.
And never have to shudder when
I bought a ton of coal;
I'd like to see my wealth of coin
In gay confusion tossed
And buy big beefsteaks when I liked,
And never ask the cost!

T. E. M.



"ONLY SURE REMEDY"

Gadsden, Ala., Apr. 26, 1909.

Dr. B. J. Kendall Co.
Gentlemen: Please send me copy of your TREATISE. I have been using your Spavin Cure for 20 years, and find it is the only sure remedy. It is the best liniment I can get for horse and man.

Yours truly,
W. J. Mellee.

That tells the whole story, and it is the experience that hundreds of thousands have had in the past 40 years, and it's the experience you will have—"It is the only sure remedy!"

For Spavin, Ringbone, Curb, Splint, Swellings and All Lameness

Sold By Druggists—\$1.00 a Bottle, 6 bottles for \$5.00. Keep it on hand always. Be ready for the emergency. Kendall's stops the pain, starts the circulation, penetrates and removes the cause of the disorders. Ask for a free copy of "A Treatise on the Horse." If not at dealers write to—
DR. B. J. KENDALL CO., Enosburg Falls, Vt.

BANNERMAN'S ARMY AUCTION BARGAINS
 \$114.00 SET ARMY POLE HARNESS \$71.95
 Set Army Lead Team Harness \$17.95

Army Saddles \$3.00 up
 Army Saddle Tents 1.00 up
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FRANCIS BANNERMAN, 501 Broadway, N. Y.

PURE BREDS BETTER THAN SCRUBS.

I have made several feeding tests to see what difference, if any, there is in pure-bred hogs and the common scrubs. It pays handsomely to stock the farm with pure breeds, even if it costs considerably more. I selected as good a scrub pig as I could get and put it in a pen with one of pure bred. The pigs were the same age and received the same feed.

At 12 months each was slaughtered. In one test we got 73 pounds more dressed pork from the pure-bred than the scrub hog. On a second test we got 86 pounds more. Two other tests gave us 67 and 92 pounds more pork from the pure breeds.

A cousin last year got over 1800 pounds dressed pork from six pure-bred hogs slaughtered at 13 months old. He recently showed me five hogs that were the get of a scrub boar which got with a pure-bred sow. He said: "These hogs have had a better chance and eaten far more feed than the pure-bred pigs. I will not be able to get 200 pounds net from them, while I got over 300 pounds net from the others."

I find it less trouble to sell a pure-bred pig at \$5 to \$7.50 at weaning than a scrub pig at \$2 to \$3.—W. C. Crook, Henderson Co., Tenn.

Two men were in prison, one for stealing a cow, and the other for stealing a watch. "Hullo, Mike, an' sure what o'clock is it?" said the cow stealer. "I've no timepiece handy, but suppose it's just about milking time," replied the other.

Used 20 Years—Cannot be Beaten.
 Hempstead, L. I., April 29, '09.
 E. F. D. No. 1, Box 93.
 DR. B. J. KENDALL CO.,
 Gentlemen:—Kindly send me your book. I have used your medicine for about 20 years, and find it cannot be beaten.
 Yours truly,
 Daniel T. Stenson.

LET US TAN YOUR HIDE.

Cattle or Horse hide, Calf, Dog, Deer, or any kind of skin with hair or fur on. We make them soft, light, odorless, wind, moth and water proof, and make them into coats (for men or women), robes, rugs or gloves when so ordered.

Your fur goods will cost you less than to buy them, and be worth more. Send three or more cow or horse hides in one shipment from any where, east of Denver and we pay the freight both ways.

Get our illustrated catalog which gives prices of tanning, taxidermy and head mounting. Also prices of fur goods, and big mounted game heads we sell.

The Crosby Frislan Fur Company,
 571 Lyell Ave., Rochester, N. Y.



NEW JERSEY'S AGRICULTURAL STATISTICS.

First Preliminary Comparative Statement of General Farm Data Issued by the Census Bureau.

The reported value of farm implements and machinery was \$12,955,000 in 1910, as against \$9,330,000 in 1900, a gain of \$3,625,000, or 39 per cent.

The total acreage reported in 1910 was 2,562,000 acres, as compared with 2,841,000 in 1900, a decrease of 279,000 acres, or 10 per cent.

The improved acreage was returned in 1910 as amounting to 1,800,000 acres, as against 1,977,000 in 1900, a decrease of 177,000 acres, or 9 per cent.

The improved acreage formed 70 per cent of the total acreage in both 1910 and 1900.

The average acres per farm reported in 1910 was 77, as against 82 in 1900, a decrease of 5 acres, or 6 per cent.

Average Value per Acre.

The average value per acre of farm land and buildings in 1910 is stated as \$83.10, as against \$57.23 in 1900, a rise of \$25.96, or 45 per cent.

The average value per acre of farm land alone in 1910 was reported at \$47.76, while in 1900 it was \$32.86, the amount of gain being \$14.90, or 45 per cent.

Of the whole number, 33,161, of farms reported in 1910 there were 32,686, or 99 per cent. operated by white farmers, and 475, or 1 per cent. by colored farmers, as compared with a total of 34,650 in 1900, of which 34,180, or 99 per cent. were conducted by white farmers and 470, or 1 per cent. by colored. The decrease in the number of farms of white farmers during the decade amounted to 1,494, and the increase in the number of farms of colored farmers to 5.

The total number of farms operated in 1910 by owners, part owners, and owners and tenants, comprising the "all owners" class, was 23,881 as compared with 23,434 in 1900, an increase of 447.

The total number of farms conducted in 1910 by cash tenants, share tenants, and cash and share tenants, comprising the "all tenants" class, was 8,238, as against 10,355 in 1900, a decrease of 2,117.

The total number of farms operated by managers in 1910 was 1,042, as compared with 861 in 1900, an increase of 181.

The total number of farms operated by the "all owners" class constituted 72 per cent. of the whole number of farms in 1910, and 68 per cent. in 1900; those operated by the "all tenants" class, 25 per cent. in 1910 and 30 per cent. in 1900; and those conducted by managers, 3 per cent. in 1910 and 2 per cent. in 1900.

A GILT-EDGED INVESTMENT.

7, 8 or 9 Per Cent. Guaranteed on Sums From \$50 to \$200.

To a limited number of Blooded Stock readers of character and standing in their respective communities, we shall be glad to send particulars concerning a thoroughly gilt-edged investment guaranteeing 7 per cent. at least, with 8 or 9 per cent. as a possibility. No large amounts taken.

BLOODED STOCK,
 Oxford, Pa.

BLOODED STOCK for February.

Of the total number, 23,881, of farms operated in 1910 by the "all owners" class, there were 12,121, or 51 per cent., owned free of incumbrance, and 11,760, or 49 per cent. mortgaged.

The Census Bureau has no information respecting the number of mortgaged farms leased to tenants, nor figures for 1900 available for comparison with the 1910 data as to incumbrance.

HOGS.

BARGAINS IN POLAND-CHINAS, HERKSHIRES and CHESTER WHITES.
 I now have a large stock of probably the best I ever owned. Cannot tell you all here, but I have Boars and Sows, all breeds, 2 to 6 months old, mated not akin; sows bred and boars ready for service. Guernsey Calves and Registered Scotch Collie Puppies. Write for prices and free circular. This stock must go and will be sold. M. B. Turkeys, Barred and White P. Rocks, B. Leghorns and Beagle Dogs.
 P. E. HAMILTON, Cochranville, Pa.

FOR SALE—Some fine Yorkshire Pigs no better stock in U. S. Just Imported—new blood. A. A. BRADLEY, Frewsburg, N. Y.

MILCH GOATS.

MILCH GOATS—Information regarding this most profitable milk producing animal. Write G. H. Wickersham, 1242 St. Francis avenue, Wichita, Kansas.

POULTRY.

FOR SALE—Good honest stock eggs of Single Comb Brown Leghorns; finest strains. Cup and Blue Ribbon winners at Cumberland, Frostburg and Somerset. 600 fine, large farm-raised birds for sale at reasonable prices. Twenty-five extra choice Light Brahma cockerels for sale. Write me.
 HERMAN SHOCKEY, Sand Patch, Pa.

FOR SALE—Thoroughbred DuRocs Poland Chinas and large Yorkshire Swine, Rhode Island Red Chickens and eggs.
 W. M. HARSHMAN, Thurmont, Md.

MISCELLANEOUS.

HORSES going blind Barry Co., Iowa City, Ia., can cure.

AUTOMOBILISTS ATTENTION—Fur-lined coat never worn, lined throughout with the best Australian mink, elegant Persian lamb collar, cost \$175, will sell for \$35; also pair of cinnamon bear robes \$30, cost \$120. Write
 W. SCOTT,
 121 East 27th St., New York.

TROTTER MARE for sale—a handsome, black, trotting mare, and beautiful stud colt, very fast. Second cousin to Dan Patch. Price \$200. P. J. WYAND, Cumberland, Md.

FOR SALE—Two litters Scotch Collie puppies, sired by the noted "Flying Comet" and Laddie Boy, out of bitches bred in the purple; perfectly marked golden sable; strong, healthy, farm-raised stock. Prices from \$10 up.
 FRANK H. TAYLOR, Reedsville, Pa.

SEND 10c for a sample copy of the largest, newest, race-horse paper published. P. J. WYAND, Cumberland, Md.

FOR SALE—Pure bred Registered Holstein bull calf. Mostly white. Fine individual. Good pedigree. Write for pedigree, photograph and price. MADISON COOPER, 101 Court, Watertown, N. Y.

POTATOES—I have some extra nice quality Seed Potatoes, Green Mountains, State of Maine, Norcross Gold Coin, Ruloft, Mills Prize, Carmens, Sir Walter Raleigh and Sprudling Rose. I can sell at 60 cents per bushel; cash with order. Shipment when desired. Send me your order at once and get some of this choice stock.
 J. E. WALKER,
 Avoca, N. Y.

BLOODED STOCK for February.

HOG CHOLERA CURED

SNODDY REMEDY CO., Alton, Ills.

Gentlemen: I have now given your remedy a hard test. My hogs were very sick and dying when I began the use of your remedy. A few of them were so near dead I could not get the medicine in them and these of course died. I have saved everything else that was able to take the treatment and my hogs are now in fine shape and are on full feed doing well. My sows that were near farrowing time had the cholera and I cured them. They have since farrowed strong, healthy pigs and the sows and pigs are doing fine. It is the only remedy that I have ever heard of that will absolutely cure hog cholera after the hogs are sick and especially save the pigs from the sows after going through the cholera as mine did. I have the utmost confidence in the remedy and recommend it to all hog raisers as a remedy that they can rely on in safety. I will answer any letters addressed to me from feeders who will enclose postage for reply.

With kindest regards, I am, Respect,
 Snoddy's free book of instructions will explain the whole method of handling diseased herds and keeping hogs in thrift, will be sent free on request. Address

The Snoddy Remedy Co., Alton, Ill. Station "C"

CANADA EXPRESS RATES ORDERED CUT AS UNFAIR.

Commission Declares All Dominion Charges Are Excessive.

OPPRESSION IN CONTRACTS ASSAILED.

Judgment Finds That the Forms Are Drawn to Escape Liability.

CAPITAL INFLATION FOUND.

Investigators Cite Instance Where \$27,500 Paid in Stock Brought \$660,000.

Over-capitalization and excessive rates are the chief findings of the Canadian Board of Railway Commissioners as a result of a two years' inquiry into the business of Canadian express companies. They are ordered to file within three months new tariffs along lines laid down by the commissioners. These will result in marked reductions. The present form of contract is found "grossly unfair" to shippers and ordered changed.

The judgment, which was rendered by J. P. Mabee, chairman, and concurred in by the other two Commissioners, Messrs. Scott and McLean, has no small interest for Americans, although it states that the Canadian companies are different from those of the United States in that they are owned by the railroads. The chief companies affected are the Canadian Northern, owned by the railway of that name; the Canadian, owned by the Grand Trunk Railway, and the Dominion, owned by the Canadian Pacific Railway. The history of the companies is reviewed in detail and with considerable caustic comment.

The original capital of the Dominion Express Company, which is owned by the Canadian Pacific Railway, was \$1,000,000. It was subsequently increased to \$2,000,000. The Board finds trace of the actual payment of only \$24,500 cash and \$75,000 in land grant bonds. The gross revenue between 1901 and 1908 is set down at \$21,473,694, increasing from \$1,529,195 in 1901 to \$3,743,580 in 1908. For transportation the Canadian Pacific received during that period \$8,567,251. The general expenditure was \$9,264,455. The loss and damage account for twenty-two years was \$283,066. The Canadian Pacific Railroad received

total payments of 63.9 per cent of the gross revenue. The payments to the Canadian Pacific Railway for station accommodations ran from \$10,000 to \$15,000 a month.

Points to Stock Inflation.

The Canadian Express Company started in 1865 with a nominal capital of \$500,000, of which \$275,000 was subscribed and \$27,500 paid. In 1892 the Grand Trunk bought all the capital stock for \$660,000. Its gross revenue from 1901 to 1908 was \$13,362,266, of which the Grand Trunk Railway received \$8,467,307.

The Canadian Northern Express Company started in 1902 with \$1,000,000 capital, of which \$300,000 was issued and \$5,000 paid in cash. MacKenzie & Mann and their associates who control the Canadian Northern Railway, are given as the owners of the express company. In six years to 1908 the receipts were \$919,183. The railway got \$353,126 for transportation.

Judge Mabee comments:—"It is apparent that at the threshold the Canadian companies were greatly over capitalized. The assets of the Canadian Express Company were \$60,000 when the Grand Trunk paid \$600,000 for it, the extra \$600,000 presumably being for the franchise. The \$60,000 assets have grown to \$212,719 and there is \$3,000,000 of stock outstanding in hands of trustees of the Grand Trunk Railway. Now, in fact, all there is in tangible assets to represent the \$3,000,000 is the \$212,719."

"In the case of the Dominion Express Company so far as can be ascertained, \$24,500 was all the cash that was ever paid into the company on account of the capital stock, and for this \$1,000,000 paid up stock was issued. The assets now stand at something less than \$600,000, yet it has \$2,000,000 of fully paid up stock outstanding. Cut short of all trimmings, the situation is that the shipper by express makes a contract with the railway company through the express company. The whole business could go just as it now does without the existence of any express company at all by simply substituting railway expenses and letting the railways take the whole of the trouble in the first instance."

Denounces Charges to Shippers.

The judgment recognizes the heavy cuts made in rates in recent years, but says that the principle on which

the first tariff was formed was "What are the heaviest tolls we can obtain from the public for the least service we can give them?"

No evidence was produced to show the actual profit to the railways of the haulage of express. The judgment says in part:—

"This matter is being dealt with solely with the view of trying to ascertain whether these tolls on the whole are reasonable. The law as interpreted by the late chief commissioner imposes upon these carriers the onus of satisfying the Board that their tolls are fair and reasonable. Has this burden been discharged? We feel that it has not been, and in so ruling we are not interpreting the meaning of onus in a narrow sense."

You can see, at a glance, almost, that conditions in the United States are about the same as Canada has to contend with, only on a larger scale. What we want is a parcels post—what you need is a parcels post, which will give you relief from the thieving express companies. They are all alike. Write your Congressman and ask him where he stands on the subject. Do it now.—B. S.

WHAT STUDY DID.

With the mastery of the land has come knowledge of plant breeding, for now we breed fruits and grains just as we do horses and hogs. One incident will illustrate. Some years ago a boy worked on an Iowa farm. He heard his father and his friends talking about wheat failure as they sat around the stove in winter. The boy began to study wheat; he went to an agricultural college and later became a professor in another great farming school, the Minnesota College, at St. Anthony's Park. His name is Willet M. Hays. Mr. Hays said:

"The soil cannot be changed, but the seed can. Instead of yielding 14 bushels an acre, this State should produce 25." He began to grow different kinds of wheat. From a thousand and kernels he took one and then planted it again. He fertilized other plants with the pollen, and the result was a new variety of wheat. One of these has increased the yield in many sections of the State from 15 to 28 bushels per acre. In a single year it added a small fortune to the wealth of the farmers.

OUR FEATHERED FRIENDS

MUSLIN FOR THE HENHOUSE.

The muslin or canvas tent inside the henhouse has gained in favor the past few years and the idea is a good one. With a platform for the droppings, and a tent to cover the roosts to shut off drafts, there is no need of a scratching shed. Just make your building large enough for day and night use. Make it tight on three sides and on the roof. Have your nests and everything in one room. At the back, place your roosts on the level and have them removable like the slats of a bed. Over this arrange your canvas or muslin tent. The droppings are easily taken from the platform with a hoe or rake without any of the back-breaking stooping usually necessary in cleaning low roosting apartments.

There is no danger of frosted combs in a tent of this sort. In fact, a frosted comb is never seen in the coldest weather. These frosted combs come from strong piercing drafts every time, and such a thing is impossible in a tent-covered roosting room. Have the one side of the canvas so that it may be raised or lowered. You will need a good circulation of warm air on warm nights. The fowls will want a way to get out into the open shed as soon as it is light enough to begin scratching for their breakfast.

In cold weather the muslin curtains should be used on the south side of the shed so as to have a light warm place in which to keep busy. Under such conditions you will find that they will scratch happily all day in the stormiest weather, while if they are shut up in a board building, depending on a few windows for light, they will huddle up and stand about and get cold. There is nothing like exercise to promote warmth and vigor if their health is good. If your henhouse is cold and uncomfortable in winter, and your fowls have suffered from colds and winter diseases, try the inside tent plan this winter. Fix it so it can be removed in summer. It would only fill up with lice, mites and dust during the summer months, besides rendering the house too warm at that time. It is needless to warn you that the tent should be used only in a house that does not leak. A leaky henhouse is an abomination in winter.

ABOUT HENS.

Frank Kline discussed the topic, "Profitable poultry, feed, houses and care of the same." He said in part: "In order to make poultry profitable we must get them to lay during the winter when eggs bring 40, 50 and 60 cents a dozen. In order to bring this about we must hatch the young early, about February, March and April. After they are matured we must feed them a balanced ration that will produce eggs. We hear of fowls that lay 200 to 250 eggs a year, but when they lay 120 to 125 eggs they are profitable."

The Open-Front Chicken House.

"Time was when people kept their chickens as warm as possible, gave them warm feed and thought this was the only way to get eggs in win-

ter. Now we are using open-front houses."

Here the speaker showed a picture of a modern chicken house. The center of the front was open altogether, while on either side of the opening was a window. It was provided with a curtain that could be dropped over the opening in very severe weather.

"The floors should be covered with straw a foot deep and all grain should be thrown into this straw, so that the fowls will be obliged to scratch for it. To prevent lice I use a box three inches wide and three inches deep and perhaps six feet long. This I fill with sawdust. On the sawdust I put some kind of lice destroyer. The box has a lid full of small holes. It is set beneath the roosts and the fumes ascend to the fowl and kill the lice."

"The red mites are more troublesome. These I get rid of by painting the roosts with carbolium."

Feeding Chickens.

"I do not feed a wet mash. If wet mash is ever fed it should be made only so wet that it will crumble. I feed grain in the morning. The balance of the day I feed a dry mash of bran, corn and oats chop, alfalfa, etc. This I place in a hopper with a top to it so that the fowls cannot scratch the feed out."

"In grains I feed cracked corn, wheat and oats, buckwheat, barley and Kaffir corn. Then I have prepared meal set before them all day. I also feed sprouted oats. This is produced by placing about an inch of soaked oats in a shallow box and allowing it to sprout. The fowls are fond of this and eat it with a relish. To 20 hens I feed about a square foot of this between 2 and 3 o'clock in the afternoon. At 4 I give them

their evening grain ration."

"There is no best breed of fowl. Get the kind you like best. White Leghorns are said to lay more eggs, but the Plymouth Rocks lay more eggs in winter, when prices are high."

To Cure a Cold.

"While fowls should have fresh air, drafts must be avoided. To cure a cold, I place half a teaspoonful of epsom salts to a quart of water. This invariably produces the desired result."

"Pure water is very essential. If you have running water in the runs so much the better."

FORMER READING PRESIDENT RAISES A FORTY-POUND TURKEY.

Wins Blue Ribbon at Madison Square Garden Show—Hatched and Raised by William J. Morton, of Allentown.

At the Madison Square Garden show, held Christmas week, the blue ribbon for being the finest turkey in America, was awarded to "The Duke of Antwerp," a White Holland gobbler, hatched and raised by William J. Morton, an enthusiastic poultry fancier of Allentown, formerly of Reading.

The bird weighs 40 pounds and was developed from stock imported about 10 years ago by United States Senator Boies Penrose, who was impressed with the beauty of the White Holland breed while on a tour through the countries skirting the North Sea.

Mr. Morton started out in his effort to raise the finest turkey in America with the same deliberation that characterized Lord Roseberry when he announced his ambition to

breed a Derby winner. The task was not an easy one, but poultry enthusiasts proverbially endeavor to accomplish their object regardless of money or the effort it may require. The triumph of Mr. Morton, however, was complete, as the bird, which stands shoulder high to a man and looks like a living creature of white velvet, not only won first prize in his own variety, but over all other varieties as well.

Offered \$1,200 for Bird.

Barely had the sweepstake ribbon been hung on his cage when Mr. Morton received an offer of \$1,000 for the bird. This he refused as well as a later offer of \$1,200. Instead of selling his prize gobbler, Mr. Morton is negotiating to buy the blue ribbon hen in his aim still further to improve the breed. The offer declined of \$1,200 for a 40-pound turkey is believed to be the highest ever made for America's favorite Thanksgiving bird, as it has not been recorded that any bird of \$30 a pound for turkey was ever made before.

FEATHERS AND EGGSHELLS.

The New York State School of Agriculture gives instruction in poultry culture free to residents of the state. Will be great when such a school is in every state.

Set a rat on anything white and he strains his gizzard to get off it. It makes him too conspicuous. Keep that henhouse clean, white, light and tight and he'll be conspicuous by his absence.

The Light Brahma and White Rock seem to be most popular for soft roasters, and Boston is the bon ton market for them. One huckster shipped 250 tons of the juicy birds to the bean eaters last year.

As thinning the fruit increases the size and value of what remains, so culling the flock improves it in many respects and saves money. Better cook the culls and cut down the flock to the line where every bird pays a profit.

While character is invisible, it is often shown by the small things some persons will stoop to. "I didn't think that of him" is often heard in the show room, where some fancier cheats or plays a dirty trick. For what? To win a ribbon or a metal cup.

While consumers paid \$600,000,000 for poultry products the past year, only half of this was received by the producer. The rest went to middlemen, express companies, etc., but most to middlemen. When poultry raisers hustle for private trade and join co-

Belle Brand Crushed Oyster Shells

Make Poultry PAY! Tests show where these shells have been used—duration of test 22 days—number of eggs, 33; weight of eggs, 1489.6 grammes.

Where Sharp Grits were fed—test 22 days—number of eggs, 6; weight of eggs, 257.6 grammes. This is convincing argument why every poultry house or yard should have them. They'll make hens lay an egg a day, with firm, hard shell—less liable to break in shipment.

Belle Brand Crushed Oyster Shells supply Carbonate of Lime in natural form and acts as a grit, making them superior to any other poultry food on the market. Write for Free Catalogue to LOUIS GREBB, BALTIMORE, MD.

HEALTHY HENS LAY FERTILE EGGS

We have for sale a limited number of

Eggs That Hatch Healthy Chicks

Taken From Our First Mating Pens.

R. C. RHODE ISLAND REDS—S. C. WHITE LEGHORNS

Our fowls are the Strong, Hardy, Winter-laying Kind. Raised and wintered in open front-houses, Insuring Strong, Healthy Chicks.

Price, per setting of fifteen—either kind—\$2.00.

Carefully packed, prompt shipment, safe delivery.

Woodland Poultry Farm,

Bound Brook, N. J.

operative associations more of this boodle will be kept at home.

As "rotten" is about the only word applicable to a bad egg, so it also fits a fowl's head when the bird has real roup. The nasty nasal discharge, canker sores, putrid swellings, bulging eyes, rattling breath, awful smell, simply spell putrefaction. Put such victims out of their misery and burn the corpse quick to kill contagion.

An Ohio poultry editor is running a poultry farm on a half acre of ground, on which he has also 250 strawberry vines, fruit trees and a garden. He expects to give his readers valuable information, and one of his first announcements is that fifty eggs entrusted to a neighbor to set hatched but six chicks. Brothers of the poultry fraternity, put that down. It's a fact from a city farmer worth knowing, and remember well the closing remarks of his half acre article. "We have always made the poultry business pay us."

KURIOS FROM CORRESPONDENTS.

Q. I have been puzzled recently by the way certain of my hens lay and wish you would explain. I have twenty-five hens, fifteen White Leghorns and ten Barred Rocks. The Leghorns lay well, and their eggs are normal. The Rocks lay poorly, and their eggs are mostly double yolk or pigeon size without yolk. Both breeds are fed the same.

A. Your Rocks are too fat. This crowds egg organs. Leghorns, being very restless, exercising more and not prone to fat, are seldom thus affected. Either cook your Rocks or starve them thin.

Q. My young stock started with roup in August, a thing I never saw before. They slept in colony houses that were bedded with dry straw and kept disinfected with slaked lime. They were not crowded, had ventilation and did not run in rain. My neighbor was not near so careful, and his fowls kept well. Kindly explain.

A. Slaked lime when breathed often so irritates the air passages that every symptom of roup will appear. This is probably the cause unless your fowls got the contagion from an outsider.

Q. Will you kindly name the breeds whose blood mingles in the veins of the Golden Wyandotte?

A. Silver Wyandotte, Partridge Cochins, Golden Hamburg, Brown Leghorn, Black Breasted Game.

Q. Will you please name the chickens that grow largest and give weights?

A. They belong to the Asiatic family and are as follows: Brahma, from eight to fourteen pounds; Cochins, from seven to twelve; Langshan, from six to twelve.

Q. Kindly inform me as to the proportion of dried blood to mix in a fifteen pound mash.

A. One pound.

Q. What is your opinion of feeding glass for grit?

A. It is dangerous. In a post-mortem we found the gizzard pierced clear through with glass from an ordinary lamp chimney.

Q. Please give me the crude protein content of dried alfalfa, clover and mangels.

A. Alfalfa, 17 per cent.; clover, 14; mangels, 1 1/2. The percentage differs with quality.

MEETING OF THE ROAD HORSE ASSOCIATION OF NEW JERSEY.

The annual meeting of the Road Horse Association of New Jersey, for the election of officers and reports of officers, was held at Irvington, January 17. A fair proportion of the members were present, and the proceedings were spirited and harmonious. The ticket presented by the nominating committee was unanimously accepted, the secretary being instructed to cast the vote of the meeting for the following officials for the ensuing year: President, Charles F. Herr, Newark; vice-president, Arthur C. Hensler, Newark; vice-president, M. A. Sawyer, Irvington; vice-president, Henry Vander Roest, V. S., Newark; treasurer, George T. James, East Orange; recording secretary, James Beldon, Newark; financial secretary, James Lovatt, Newark; counsel, Edward Kenny, East Newark.

Board of Directors—Charles E. Barker, Newark; Col. E. S. Edwards, Newark; Andrew M. Guerin, Morris-town; Gustav Koopman, East Orange; Andrew Nicoll, Newark; John O. Stearns, Elizabeth; Adolph Schuler, Montclair; John P. Dexheimer, Orange; Capt. E. V. Gager, Newark; Frederick J. Hull, East Orange; Theodore S. Miller, Newark; Harry Stengel, Newark; Sidney S. Toman, Passaic; I. N. Voorhees, Elizabeth; Edward A. Zusi, Newark.

It is a great mistake to sell whole milk off the farm, for where the skim milk is not kept to feed to the stock one of the richest elements for manure is lost. Keep the milk home by means of a separator. Sell the cream, feed the skim milk to the calves, hogs and hens.

THESE SICKLY-LOOKING CHICKS NOT FED OUR WAY

They wouldn't be wilted, forlorn and droopy as are these poor little fellows. What's the matter? Likely some one has been feeding a lot of table scraps, or sour bread, or some other indigestible mixture that is fermenting in their stomachs. Tomorrow the owner will find eight or ten dead, and wonder: "What killed my chicks?" Chicks are babies and must have baby food. That's why Puritan Chick Food is so successful in rearing chicks, keeping them well and holding down the death-rate. It just "fits" the interior mechanism of the digestive organs of a chick.

Puritan Chick Food (The Safe Kind)

has a delightful taste and odor to a little chick, because it is compounded of those very pure, wholesome and sweet elements that naturally attract it. Your little "puff-balls" will make things fly scratching; they are always happy and busy when fed on it. Some of the largest poultry plants use Puritan Chick Food. It pays them. It will pay you, no matter how small your flock. It is foresight, wisdom, economy and profit, for you always to keep it on hand. It's true life insurance for your chicks, all other things being equal. We guarantee it so, and refund money if you're not satisfied. No fussing about it, either—your word is final. Puritan Chick Food is put up in 5-lb. boxes for \$2; 25-lb. bags \$1.00; 50-lb. bags, \$1.75; 100-lb. bags, \$3.25. Ask your dealer for it. If he hasn't it we'll supply you. Booklet free. Write now for it.



Puritan-American Poultry Food Mfg. Co., Bound Brook, New Jersey

FRUITS AND VEGETABLES

SUPERVISION OF ORCHARD WORK IN PENNSYLVANIA.

Over eleven hundred applications have been made to Prof. H. A. Surface, State Zoologist, Harrisburg, Pa., requesting him to accept orchards belonging to the applicants for the purpose of supervising or directing the proper management throughout the year, to show how to control pests, and manage the orchard in such a way as to produce the largest, most perfect and most profitable crop of fruit.

In response to these requests Professor Surface is sending his experts into every county of the State, arranging a systematic tour of the proffered orchards in each county, in such a way as to give the individual service requested.

The inspector, in every case, is a man who knows his business, and has had proper scientific training under Prof. Surface, as well as very considerable practical experience in different orchards. During the past two years the Demonstration Orchard work in Pennsylvania has proven to be such a decided success and source of revenue for the owners, that hundreds have been forced to acknowledge the value of this work, and have, therefore, applied for the assistance of the inspector to meet their own needs.

The inspector appoints a time when he will be at a designated orchard, and is there on time regardless of weather. He looks over the premises, determines whether any serious pests, such as San Jose scale, are present, and tells the owner just what to do to each tree according to its individual needs. He talks, primarily, on the subjects of spraying and pruning, and, secondarily, on the entire subject of orchard management. He examines and tests spraying apparatus, suggests features of improvement, shows how it is to be used to secure the greatest efficiency in results, shows how to make and apply the best spraying mixtures, shows how trees should be pruned according to their age and individual needs, and gives a written plan for the details of the spraying, cultivation and other features of orchard management during the entire year.

As a result of this kind of work last season tens of thousands of bushels of first class fruits were added to Pennsylvania's production, and thousands of persons are encouraged to plant more trees, either to enlarge or replace the old orchard, which in many cases has been totally destroyed by San Jose scale, or to start a commercial orchard.

The extensive nurserymen say that more trees have been planted in Pennsylvania during the past year, and more orders are now waiting to be filled in this State than in any other State in the Union. This is chiefly because of the activity of the persons officially engaged in advancing the interests of orcharding in this State, with special reference to the suppression of pests and the production of perfect fruits. It has recently been proven that Pennsylvania can produce the finest fruits of the world,

and acting upon this knowledge orcharding is going forward with tremendous bounds.

The orchard inspector not only makes examination of the Supervision Orchards but he also holds evening meetings in convenient halls or school houses throughout the county, discussing the subject of spraying, and other features of orcharding, with illustrations. Hundreds of these meetings will be held during the remainder of the winter, commencing again the latter part of January, and as they will be for the one evening only, persons in the vicinity where they are held should lose no opportunity to attend them. Announcements of the exact place and time of meeting will be made by local posters and through the local press.

This week the inspectors and demonstrators are attending the great fruit growers' meeting in Harrisburg, and are receiving further instructions from their chief, Prof. Surface, in order that they can be equipped with the latest and best practical information, which they, in turn, carry to all rural districts of our State. This is ideal and important service, of which every farmer should avail himself.

PLANTS AND THEIR PESTS.

Timely Topics of Interest to Farmers Discussed by H. A. Surface, State Zoologist.

Soft Scale.

As a guide to the owners of house plants infested with soft scale insects the following letter by Prof. H. A. Surface, State Zoologist, Harrisburg, to a Chester county correspondent will be interesting and valuable:

"The scale of the begonia is known as the soft scale, which proves to be quite a nuisance when not suppressed. It is destroyed comparatively easily by making a fairly strong solution of ivory soap in slightly warm rain water, and adding to this a little ammonia, and sponging the leaves and stems of the infested plants with a soft sponge dipped into this solution. It will loosen and remove the scales. This may need to be repeated at intervals of three or four days, but it is one of the best means of keeping the pests in check.

"This treatment can be used for pests of various kinds on household plants, and it will generally give good results. There is no exact formula as to the amount of soap and ammonia to use. Sometimes when the leaves of house plants or the fronds of ferns are very badly infested with scale, it is advisable to cut them off and burn them, and by the use of a teaspoonful of nitrate of soda in each gallon of water, stimulate the growth of the plants and the formation of new leaves, which will not be so badly infested, and consequently more vigorous and beautiful.

"I highly appreciate your very kind invitation to visit your home in Avondale, and it will be my pleasure to do so should I find it possible to stop while in that part of the State."

Fruit Tree Planting.

The activity on the part of the State authorities in demonstrating

methods of pest warfare and especially those relating to horticulture, has wonderfully stimulated the interest in planting fruit trees so that many letters reach the office of Professor Surface. Economic Zoologist of the Department of Agriculture, on the subject. The following is a reply to a letter from a farmer in Beaver county:

"Replying to your recent letter concerning the prospects of fruit planting in Brighton township, Beaver county. I beg to say that it is my opinion that you can make no mistake whatever in so doing, if you will make a thorough study of the subject, and give it modern attention. However, this means a great study, and it will be best for you to visit some good and successful fruit orchards, and learn just how the trees are managed from the time they are ordered until they are brought into their best fruiting condition. It would also pay you to attend our State Fruit Growers' meeting, to be held here on Jan. 24, 25 and 26, and become acquainted with the methods of different fruit growers. There is money in this business if handled rightly. There is considerable literature to be had. We are sending you a Bulletin entitled 'Fruits for Penna.' and if you wish I shall be glad to place your name on our free mailing list, if you are not receiving the Bulletins from my office.

"I can give you the names of several of the nurserymen if desired. I would recommend that you buy home-grown trees rather than those grown in some other State."

When to Prune and Spray.

A Mifflin county fruit grower writes to Professor Surface requesting detailed information on when to prune and spray peach trees and how to prepare the spraying solution to treat them. The Professor replied as follows:

"Replying to your letter asking if it is too late to spray peach trees, I beg to say that trees and shrubbery of all kinds are best sprayed for San Jose scale and other scale insects, and certain other species of insects and plant diseases, when they are dormant or leafless, and, in fact, both the pruning and the spraying can be done with good results at any time from the time the leaves drop in the fall until the pink of the blossoms is shown in the spring. When pruning is done in the fall or winter, care should be taken to paint the cut stubs, with pure white lead and linseed oil. I would recommend pruning first, and spraying at any time thereafter when the trees are yet dormant.

"You can boil the lime-sulfur solution in any kind of a vessel excepting copper. A galvanized iron wash tub is very good for this, and in it you can easily boil at one time enough to make two barrels of dilute spray liquid. Common iron kettles will serve the purpose very well. In each gallon of water, boil one pound of lime and two pounds of sulfur, for three-quarters of an hour. Strain this and either dilute it and use it at once, or store it in closed vessels to be used in the future.

FRUIT TREES.

To raise good fruit trees, proper care is needed. The care the trees need, is:

Cultivation,
Fertility,
Pruning,
Spraying.

Cultivation should begin when trees are young in the spring, and should be continued until the latter part of August. This cultivation should be plowing, harrowing, or discing.

Corn may be planted in rich ground. Tomatoes, potatoes, and harryvetch are also very good, because they cover the ground and keep back the moisture.

Orchards take off fertility as well as other crops. An orchard takes off more nitrogen, therefore the plowing under of organic matter is very essential.

A branch on a tree does not grow any higher where it sprouts out, but the top of the tree grows higher.

Apple trees should be trimmed from two to three feet from the ground, and then diseases are not as liable to harbor in them.

Trees should be pruned heavily when young, leaving three to four heavy branches. All the dead wood should be trimmed off carefully from the trees that are dying. Always cut the branch even with the trunk, and put some paint or any other substance on the cut, to keep the sap from escaping.

Pruning should be done in March. Trees must be sprayed to keep off the insects. To spray the trees in the winter, the following mixture should be used: Lime, sulphur and water. This mixture should not be used when the leaves are on the trees, as it will kill them.

When the trees are sprayed in spring, the following mixture should be used:

4 pounds copperas,
4 pounds sulphate,
4 pounds fresh lime, mixed with 50 gallons of water,
2 to 4 pounds lead arsenic, or 4 ounces Paris Green.

This should be applied when the buds and shoots are open, and not when the trees are in full bloom, as it will kill the blossoms.

Another spray may be given in one week or ten days, but this is not necessary.

FERTILIZATION AND FERTILIZERS.

You are a farmer. You are, we presume, farming for profit or are trying to do so.

Do your crops do as well or better than those of your neighbors? In either case do you know the reason why? Have you studied the question so that you may know?

Probably the most prosperous farmers in the United States are the Pennsylvania Germans of Lancaster county, Pennsylvania.

They have two main ideas always in view: To grow plenty of tobacco and plenty of corn and hay; to feed the hay and grain and send the crops to market on the hoof, keeping the manure at home to improve the land.

These farmers watch their manure heaps as they do their bank accounts. Of course, they can't buy stable manure, but they all of them do buy and use commercial fertilizers, because they realize they cannot make all the

manure they want, and they know that big crops require plenty of plant food.

These are the secrets of the big barns, the fat stock, the comfortable look of everything and everyone about a Lancaster county farm.

You should know your crops as you know your stock. You must feed your crops as freely as you would your horse. If you take off your land more than you put on it you will be impoverishing your soil.

Now, not one farmer in a thousand does put back what he takes out of the soil. None of them make enough manure at home to do so, and few of them but figure carefully how little, rather than how much, chemical fertilizer they will buy.

When the farmer does buy he is tempted to buy low grade rather than high grade goods.

Remember, when it comes your turn to buy, if you buy highest grade goods you get more fertilizer for the same money than when you buy the low grade goods. Don't take our word for it, ask your nearest Experiment Station director. By the way, do you get the bulletins from your State Experiment Stations and the Farmers' Bulletins from the United States Department of Agriculture? They are published for you and you are entitled to have them without cost. You are neglecting your opportunities to be a better farmer if you do not receive and read them.

You can have the very best and the very cheapest fertilizers by mixing them at home.

Since the German Kali works—the potash producers—have broken away from the fertilizer trusts they are making it possible for farmers to buy the potash necessary for home mixing. Nitrate of Soda and Superphosphate it was always possible to obtain.

By Home Mixing you get just what you need, as you need it, and cheaper than you can get your fertilizers any other way.

You can also then reserve a part of your Nitrate of Soda for top dressing your growing crops, giving them nitrogen at the moment they need it most and thus getting quick and positive action.

Nitrogen is the most costly of all the fertilizer materials, yet the one most usually deficient in your soil. The fact that it is costly and increases rapidly the cost of fertilizers makes fertilizer manufacturers oftentimes neglect to use as much of it in their mixtures as they should. You can take it as a rule that most complete fertilizers don't have all the nitrogen in them they should have. As a result Farm Papers and Experiment Stations are recommending the use, in connection with other fertilizers, of Nitrate of Soda alone as a top dressing at the rate of 100 pounds to the acre.

A few years ago small packages of Nitrate of Soda were sent out to several thousand farmers for trial and report on what it would do when used as a top dressing. In all trials the crop produced was weighed, as also was the crop from an equal sized plot of ground which had received no Nitrate. These trials were all made by ordinary farmers in the ordinary way on regular crops of all kinds under ordinary growing conditions and the results were marvelous.

We recently received and read a little pamphlet giving the names and



MANATEE FLORIDA

West Coast Where Fortunes Are Made

GROWING

ORANGES, GRAPEFRUIT, VEGETABLES

Offers biggest returns for the smallest investment. Yields \$500 to \$1500 per acre net. Two and three crops per year—highest prices secured in the best markets of the East and North—low freight rates and quick transportation via the S. A. L. Ry.

LAND IS CHEAP NOW

but prices are advancing—thousands of new settlers are taking advantage of the exceptional opportunities. Ideal, healthy climate, year round—plenty of high-class labor—abundant supply of pure water.

MAKE YOUR PLANS TO-DAY

to own a small farm in this "Garden Spot." Perfect independence is assured.

Instructive booklet describing this wonderful country in detail mailed free on request. Address: J. W. WHITE, GEN'L INDUSTRIAL AGT., SEABOARD AIR LINE RAILWAY, NORFOLK, VA., DEPT.

addresses of many of these farmers with the reports of results obtained. They set us thinking. If you would like to think, too, write B. S., for the pamphlet, "What Nitrate Has Done in Farmers' Own Hands."

It is a hard matter to convince many farmers that it is good policy to be liberal in the use of fertilizers rather than to skimp. It is hard to make them realize that an extra hundred dollars or more spent in fertilizers will be returned by two hundred dollars in extra crops, but it is so.

Another thing, consider your fertilizers as you would your stock. In using commercial fertilizers use such as have every element as immediately available as possible. Don't use commercial fertilizers with a view of their lasting from year to year. Put into the ground this year just what your plants will feed upon this year and save the money you pay for lasting effect for fertilizer food next year. You wouldn't think of putting two or more days' feed in your horse's manger, but give him what he eats at once. Feed your crops the same way. Give them good food and to be sure of this fact, mix it at home.

EXPLAINED.

Chinese Guide—There is a legend, sir, that at certain times the god rains money upon this region.

American Tourist—Huh! Get the idea out of your head right now. That's only the money that's been sunk in American gold mines coming through.—Puck.

PUMPKINS GOOD FOR SHEEP.

Pumpkins are good feed for sheep in the fall of the year. When winter comes on and the pastures do not furnish enough feed to keep them thrifty and growing nicely begin feeding corn and fodder, cowpeas and clover hay and sometimes thrashed oats or sheaf oats.

THE HOUSEHOLD

SOME SEWING HINTS.

1. If you have difficulty in hemming or stitching chiffon, soft silks, etc., try laying a piece of thin paper under the goods and stitching through this. The paper may then be torn away and the goods will not be puckered nor require pressing.

If you are a poor buttonhole-maker or pressed for time, try a machine-made buttonhole, especially for underwear or children's clothes. They are neat, quickly made and last as long as if worked by hand. Cut the buttonhole perfectly straight, overcast the edges and ends by hand, then stitch all around two or three times by machine, and you will have a nice buttonhole with very little time and labor.

3. Gather all sleeve-tops, skirts and everything you can on the ruffler, and save the time of gathering by hand, or stitch with a loose tension and long stitch and then pull the threads until you get the required fullness.

4. To make a good draw-string for petticoats or pieces for skirt-hangers, etc., take a strip of goods about an inch wide and run through the binder, stitching at the same time.

5. Keep a piece of sandpaper in the machine drawer for rough or blunted needles; a file, too, will quickly smooth a dull machine-needle, and scissors may be sharpened on a large needle or the stem of a glass (or piece of glass) by opening and shutting quickly, as if you were trying to cut the glass. "Time and Money Saving Hints," in The Ladies' World for February.

URGES BETTER LIFE FOR BOYS ON FARM.

Rural Papers Say Education and Increased Opportunities of Cities Depopulate Farms—The Boys Want Fame and Can Find Only Corn and Potatoes on the Farm, While City Boarders Have Money, Fame and Fun.

The discussion of the desertion of the country for the city by farmers' sons, the reasons for it, and the methods of checking the tendency is being taken up by the agricultural journals of the country with renewed vigor. A recent canvass of the State of Maine in particular brought out the fact that many of the rural communities are decreasing in population, several farmers who had either abandoned or sold their farms saying that they had done so because "all the young folks had moved to town."

The Maine Farmer, one of the most influential agricultural journals in New England, which is making an active "back-to-the-farm" crusade, assigns as the chief reason for the desertion of the farm the sending away of farmers' sons to be educated, and their consequent rush into the "bigger opportunities" of the town and city. In a recent editorial, The Farmer said of this:

"The one thing above all others which will influence the boys to remain on the farm, or influence other boys to come back to the farm, is a convincing demonstration that the farm offers as great and as good opportunities for making as much of

life as any other department of industry. And there is nothing quite so effective in demonstrating this fact—for we believe it to be a fact—as actually providing for the boys—and the girls, too—some of the opportunities which they know the city can provide, and in the enjoyment of which they discover many or most of their city friends, without seeing, of course, the disadvantages of city life.

A Reasonable Conclusion.

"It is not unreasonable to conclude that the boy who is given some interest in the farm: who is made to find that farm work is no harder than most other work, while it allows of a great deal more freedom and actual pleasure in labor than most; who grows up in the enjoyment of some, if not all, of the advantages which his city friends have; who, perhaps, has some of the advantages which they cannot enjoy, like a horse to drive or a frequent holiday; whose home and surroundings have many of the refinements and comforts of city life; such a boy will, we believe, think long and seriously before he decides to leave the farm for some other kind of life.

"We do not believe that this is an overdrawn picture of the opportunities for pleasures which the farm may offer. The average farm on which a growing boy is doing the work of a hired hand, and perhaps more, can well afford a good driving horse for the pleasure of the family, and even the automobile is within the limits of possibility for a great many in these days. We have an idea that a larger proportion of farmers are really able to buy automobiles than are the people who own them in the cities.

"As for creature comforts, the farm ought to be just as comfortable a home as the city house. There is no reason why the farm house should not have steam heat as well as the city house; why it should not have bath room and kitchen conveniences, and even gas light, or in some cases electric lights, manufactured by the water power which the farm possesses."

A Correspondent's Experience.

A correspondent of the paper, who says he was born on a farm, sums up the situation in an interesting manner: "The country boy who gets his education in the little red school house on the hill," says he, "emerges from the institution of learning with a burning desire to be a great man like those about whom he has been studying. He will go out into the world and become a President or a Senator or a Congressman. His ambition to do all this leads him to study the lives of these great men very carefully, to see if he can find out the reasons for their success. The people who come to 'the lake' and to cottages there for the summer all come from the city. He knows that they sit in the shade and fish while he digs potatoes for them at 20 cents a peck. A boy there who has given him a never-to-be-forgotten ride in his automobile has told him that his father was born and lived on a farm before 'he made all his money.' This

man is a noted banker. The boy knows that there is no opportunity for him to make money on the farm. Another man is a Congressman. The only farmer the boys know of who holds public office is the Third Selectman. The storekeeper and the hotel proprietor are also on the Board, but they are both over the farmer.

"With all these things before him, is it any wonder that in a short time we find the farmer boy holding some small position in the city at a salary of about \$10 a week?"

THE WAY OF A WOMAN.

They had been quarreling, and although hubby was willing to take the blame all upon himself and smooth matters over peaceably, she was still snippy and indifferent.

"Come over here, Jessie. Aren't you curious to know what is in this package?"

"Oh, not very; I can stand the strain," she replied belligerently.

"Well, it's something for the one I love best in all the world," he said coaxingly, trying to win a smile.

"Oh, is that so?" she sniffed. "I suppose, then, it's those suspenders you have been wanting."

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MILK FEVER.

This very common disease still seems to baffle a great many farmers, judging from the many inquiries that have recently been received at the Colorado Agricultural college. No person, whether a veterinarian or not, should fail to diagnose this malady when it is in typical form. Usually the best cow in the herd is affected; in any event she is sure to be a heavy milker. She has been fresh from twelve hours to a week. She is found down, unable to rise, with the head turned into the flank. She appears to be almost lifeless, and, indeed, the condition seems to be similar to fainting in man.

Whenever the above symptoms are present, with the history, then you can say milk fever is the trouble in nearly all cases.

Now, the name is peculiar, for there is no milk, neither is there any fever; but some one called it that to start with, and the name clings. Pasturient paresis is certainly a better term, because it is a paralysis associated with parturition.

We will suppose the cow is found in this condition. What are you going to do about it? The most important things are what not to do. Do not give any feed or medicine by the mouth and do not allow anyone else to do so. This is imperative because whatever is poured into the mouth is likely to go into the lungs and even though the cow recovers, she will die later of pneumonia. Do not destroy her, thinking she will surely die anyway. I know she has that appearance, but the fact remains that about 999 out of every thousand can be cured.

Get a veterinarian, if one can be had, because here is a case above all others where a small fee to a competent veterinarian will return itself many fold.

If it is impossible to secure a veterinarian, then give the air treatment, which has been described in all farm papers for several years, and don't give anything else. Remember, however, that even as simple a thing as the air treatment seems to be, it has not given the results that have been claimed for it, in incompetent hands. And this for reasons which are easily explained. First, lack of proper equipment with which to give it; second, because of lack of absolute cleanliness on the part of the operator.

TO BOYS

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Have a business of your own and make more money in one week than you ever made in a month before. If you want MONEY we can help you get it—it does not interfere with your regular duties—WE GIVE AWAY MONEY to those lucky enough to find IT—JOIN the "BLOODED STOCK CLUB"—One in every town if we have members enough, and they all make money—ALL young and old. Write for full particulars and samples at once. Address, BLOODED STOCK CLUB, Oxford, Pa. No Capital Required.

By absolute cleanliness I mean that every piece of apparatus used, and all the air injected, must be rendered free from germs. Otherwise mammitis results and this is nearly as bad as the original malady.

I. E. NEWSON,
Colorado Agricultural College, Fort Collins.

ECONOMIC MILK PRODUCTION.

I take it that most people are in the dairy business to make money, and in my experience few are milking cows for pleasure. There is, however, as much pleasure in profitable dairying as there is in the conducting of any successful business. It is enough to say, therefore, that to make the dairy business profitable is to make it also pleasant.

The study of economic milk and cream production should be in the mind of every milk cow keeper in our land, for without such we can expect little progress or advancement in the business. We cannot be content with average conditions, for the average is quite poor, whether it be the average cow or the average profit derived from her. The common cow has done much for our country, but it is high time we started her improvement as well as her care. The time has come when we need more uncommon cows to meet the conditions of high priced land, high priced stock food, and the increased cost of living. The average mid-west milch cow produces about 140 lbs. of butter per year, and it costs what 100 lbs. of butter will bring to keep her. Therefore with butter at 22 cents per pound her profit would be about \$8.80. Those who are content with such a return need not bother about improvements, but few would care to milk cows with such a reward. It always seemed to me that it was easier to milk a good cow than a poor one, and I know the good cow is more profitable. It has been said that the greatest need in the dairy business is more good dairymen and that the average dairy cow is a better specimen of her class than her keeper. I think it can also be said the average cow is enough to discourage the average dairymen and cause him to quit the business. To be content with the average means reaction; to improve means progression. If the average man is content to keep the average cow, he has little to boast of, for we must admit the average is quite poor.

By better methods in care and feeding it would not be difficult to double the milk yield of our common cows, and no doubt this is the easiest method of lowering the cost of production. As advanced dairymen, however, we should not be content with the limited production of the common cow, but as fast as possible improve our herds with dairy blood. The dairy stock feeding business has a splendid future in our country, for the demand is far greater than the supply and it will require many years to produce enough good cows to fill the wants of our dairies.

Be honest with your cows and your customers and you will have no trouble producing good cream and butter and always finding a ready market for both.



TO READERS OF BLOODED STOCK WHO CUT THIS ADVERTISEMENT OUT AND RETURN TO ME AT ONCE I WILL GIVE A CASE OF

"Creola Talcum Powder."

FOR THE TOILET IT IS EXCELLENT—FOR SHAVING IT HAS NO SUPERIOR—SAMPLES FREE—ASK FOR THEM.

A SPECIAL MONEY-MAKING PROPOSITION WILL BE SENT YOU, TOO.

TRUSTING TO HEAR FROM YOU AT ONCE.

I AM, VERY TRULY YOURS,
ROSE A. FITZGERALD, Sec'y.

The Creola Chemical Co.,
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CACTI FREE.

10 specimens free with each \$25 order. Dealers take notice—order at once.

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SHEEP REPAY GOOD CARE.

Many farmers keep a flock of sheep because of their ability to renovate the soil and keep down weeds and sprouts, in both of which roles they are a demonstrated success. But the men who will make the most profit from their sheep are the best farmers, who will provide their sheep with comfortable and sanitary quarters and feed them the best that the farm affords.

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Warranted the most practical machine made. One man can lift 20 tons. Made in 3 styles, 10 sizes. Screw, Cable and Hand Power. We manufacture a Title Ditcher and best CORN HARVESTER ever made. Cuts two rows with one horse. Agt's wanted. Write for catalog. Box 22, H. L. Bennett & Co., Westerville, Ohio

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PILGRIM'S MONUMENT, CAPE COD.—Near this spot I have a few house lots, all surveyed and properly recorded with Registry of Deeds. Would you like to own one of these fine lots on the Atlantic Coast? Sold reasonable and on easy terms. I also have a hen farm near here. Write for information. Lorenzo J. Peabody, Boston, Mass.

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FOR SALE.—\$4,000 nine-room dwelling, outhouse, barn and twelve acres highly cultivated land on beautiful drive 4 miles from city of Augusta, thickly populated neighborhood, schools and churches, nearby transportation facilities, lovely climate. Address J. H. Norrell, 1402 Gwinnett St., Augusta, Ga.

NEW COUNTRY OPENED by railroads. Greatest general farming district known in Texas; fine climate. Where Frisco and Santa Fe Railroads meet. Write for information. Richey-deFreest Land Co., Wheat Bldg., Ft. Worth, Texas.

SOUTH GEORGIA bottom lands. Pecans, fruit, poultry, vegetables. Only \$18.50 an acre. \$2.50 an acre cash and \$1.00 per month. 5 acres or more. Title perfect. No interest or taxes. Write Parker & Parker, No. 42, Cleveland, Ohio.

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FARM HOMES in Sunny South at fraction usual cost through Co-operative Land Clubs. Colony of 600 successfully located. New club forming. Desirable members invited. Edw. Miller, Ruskin, Fla.

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COINS AND STAMPS WANTED.—Even commonest kinds that other dealers don't buy. Booklet R 4 mailed free. Royal Money and Stamp Co., 150 Nassau, New York.

250 DIFFERENT STAMPS.—500 hinges and album. 25c. Wright, 35 Norton St., Dorchester, Mass.

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STAMPS CATALOGING \$2.50 mounted and priced, postpaid, 25 cents. J. E. Grafton, Newark, Ohio.

STAMP CATALOGUE; 100 different foreign stamps, 8c. Powell Company, Storm Lake, Iowa.

STAMPS, 200 ALL DIFFERENT, 10c; 30 Italy 10c; 30 Sweden 10c; 20 Japan 10c. F. L. Toupal Co., Chicago Heights, Ill.

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WANTED TO EXCHANGE portable roller rink for automobile, 50x80 waterproof tent, 40x70 hard maple floor, 150 pair skates, etc. Rink now in operation in excellent condition. Will invoice \$1,200.00. Hammer Bros., Lamoni, Iowa.

STATIONARY SAW MILL with novelty works and established trade. What have you to offer? Reason, other business. Box 302 Dresden, Ohio.

4-PASSENGER STEAM AUTOMOBILE, in good condition, \$200.00, or exchange for upright piano. Vallance Co., Elkhart, Ind.

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EXCHANGE billiard table and accessories for good motorcycle. Write for particulars. Address M. Rogers, 515 North 64th Ave., Oak Park, Ill.

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automatic feeds; \$550.00 cash. Full line of other machine tools. Western Machinery Co., 6th and Baymiller Sts., Cincinnati, Ohio.

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DO YOU WANT to build small gasoline engines? We want to get in touch with some one who is, or can prepare to build two sizes of gasoline engines; largest weighing 800 pounds. Have complete patterns and drawings; splendid proposition to keep your factory busy. The Cyclone Drill Co., Orrville, O.

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AUTOMOBILES.—All models, lowest prices for immediate delivery—Buicks, Fords, Maxwells, Oldsmobiles, Cadillacs, Packards, and hundreds of others. Two-passenger Runabouts, \$95.00; three-passenger roadsters, \$100.00; four-passenger Roadsters, \$250.00; five-passenger cars, \$295.00. All guaranteed. 5 per cent. discount and \$10.00 electric horn free. Write now for latest illustrated bulletin. New York Motor Car & Cycle Exchange, 215 West 125th St., New York City.

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ELECTRIC AUTOMOBILES SACRIFICED. unheard-of offer. Any standard make. Wood's, Baker, National, Columbia, etc. Any of these high-grade machines we will sell for \$100. Heerey Machine and Battery Works, 916 E. 43d St., Chicago.

LARGE STOCK of used automobiles, must be sold this winter at very low prices. Catalogue for stamp. Rubel Co., Louisville, Ky.

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K. & R. TWO-SPEED conversion set, used less than 25 miles, will fit and belt-drive motor motorcycle. \$40.00, cost \$60.00. Set of special rear stays for use with above to fit Merkel, \$10.00, cost \$20.00. New M-M side car complete, \$50.00. 1909 M-M Magneto Special Motorcycle, excellent order, \$100. Caldwell's Motorcycle Agency, 10 Colden St., Newburg, N. Y.

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40 SECOND-HAND MOTORCYCLES, all makes, \$35 up. Each one sold with our full value guarantee. Tiger Cycle Works Co., 782 8th Ave., New York City.

FOR SALE.—Nickel-plated spokes and nipples for motorcycles at low prices. R. Roth, 1423 North Ave., Bridgeport, Conn.

MISCELLANEOUS.

CLERKS, TINNERS, MACHINISTS, Painters, Draftsmen, Lay out; your own letters and figure; our E-Z System book. Teaches you in thirty minutes, not a stoned system. Price, \$2.00 prepaid. Southwestern School of Letters, Waco, Texas.



Guernseys owned by ex-Governor W. D. Hoard, Editor Hoard's Dairyman, Wisconsin.

THE DAIRY SIRE.

W. D. Hoard—Editor Hoard's Dairyman.

In these days of agricultural books, dairy papers, agricultural colleges, experiment stations and the public testing of cows, all pouring out a flood of facts and knowledge on the question of dairy breeds, what sort of a farmer is that man who would deliberately breed to a beef bred sire to get a profitable dairy cow? Sure enough, what manner of man is he? What sort of a horseman would he be who wanted a colt that would trot and to get him would breed to a draft stallion? What sort of a sheep breeder would he be who wanted fineness of wool and so bred his ewes to a Cotswold ram? What sort of a swine raiser would he be who wanted pigs that would fatten easily and profitably, and so bred his sows to a Mississippi razor back? Wouldn't we look at him in wonder, and ask, "Where under the sun did he get his ideas of breeding from?" Of course we would.

Well, is all this any more unreasonable and more lacking in sound breeding sense than it would be to hunt for good, profitable dairy cows in a Hereford, or Shorthorn, or Poll-ed Angus sire? It looks so ridiculous that it is almost impossible to believe that well posted, fairly intelligent farmers would humbug themselves for a series of years in that way. Yet just that sort of deception is being practiced today by thousands of farmers in Iowa. If these farmers were men who read dairy papers, or who visited advanced dairy communities where well bred dairy cows are kept, they would soon see that they were throwing away their time, feed and labor on absolutely wrong ideas of what a profitable dairy cow means.

Here is a statement or series of statements that will put the question where it belongs: When once a farm-

er patronizes a creamery, he subjects himself to all of the expense of a dairy farmer. He can't help it. There is the cost of pasturage; cost of forage and grain and cost of taking the milk and cream to the creamery. All that costs money. It must be so. Now, it costs very nearly the same for a herd of poor cows as it does for a herd that will yield double their product. The cows of Iowa have been mainly beef bred. How much butter do they average at the creamery? About 150 pounds. What is it worth in cash? What was Iowa creamery butter worth last year? About 27 cents a pound. One hundred fifty pounds of butter at 27 cents is \$40.50. This is the gross overage cash yield of these beef-bred Iowa cows. Look at it in any light you will, you cannot keep a cow that will yield 150 pounds of butter for a year short of \$40.00 for the food she will eat. What does that leave the Iowa farmer? Is he satisfied to labor for a cow a whole year for a margin on her butter yield of only 50 cents above the cost of her keep. Is that all the profit he wants?

Farmers of Jefferson county, Wisconsin, have been differently educated. Nearly forty years ago they were taken hold of by a live State Dairyman's Association composed of men who believed in the redeeming power of the dairy bred sire to lift the milk production of Wisconsin cows to a higher range of profit. All over that county you will see great herds of Holstein, Jersey and Guernsey grade cows, nearly all deriving their quality from registered sires. What is the average butter product per cow in Jefferson county, Wisconsin? Over 250 pounds. What has done it? The Dairy Sire. He is a great educator.

When the farmer has paid from \$100 to \$200 for such a sire he is bound to think, read and study on a whole lot of dairy methods that he would not consider if he had a beef bred sire at the head of his herd.

There is one herd in Wisconsin where the yield of 33 cows in butter fat has been 415 pounds per cow. That means 484 pounds of butter. Multiply that yield by 27 cents and you have a cash return of \$130.68 per cow. The cost of keeping that herd was \$61.00 per cow, leaving a balance of \$69.68, at 27 cents a pound.

Men who have never looked into these facts may think that they are false, but that shows they are not conversant with the truth. What has made the cow of Jefferson county what she is? Good dairy blood in the sire. The cow of Jefferson county returns per year, for butter, at 27 cents a pound, \$67.50 and the Iowa cow but \$40.50. In other words, the cow that produces 250 lbs. of butter annually returns \$27.00 more to her owner than the cow that gives but 150 lbs. of butter in a year. It is estimated that Iowa has 1,500,000 cows and a loss of \$27.00 per cow would amount to \$40,500,000 that the farmers of Iowa might just as well have if they would think different and act different on this question of a dairy sire. Haven't the farmers of Iowa punished themselves about long enough in their attachment to the beef bred bull? Does it pay to breed for beef when you are after milk? There is but little difference in the cost of keeping a cow in Wisconsin or Iowa. But there is a big difference in the cash return per cow. Think on these things.

"You look like a fool!" thundered the disgusted man to his swell son, just in from college. "More and more like a conceited, hairbrained, helpless fool every year!"

Just then an acquaintance of the old gentleman entered the office.

"Hello, Charlie, back, eh!" he exclaimed genially. "Say, you're getting to look more and more like your father every year."

"Ya-as," said Charlie, "that's what the governor's just been telling me."

RHODE ISLAND LEADS IN DENSITY OF POPULATION.

Penn'a Has 171 People to the Square Mile.

Rhode Island has 508.7 people to the square mile, thus, according to Census Bureau figures, leading the list of States in the matter of density of population. Nevada, with only seventeenthths of a person to the mile, finds a place at the lower end of the table giving these facts.

Second in the density list, Massachusetts supports 418.8 people to the square mile; New Jersey, 337.7; Connecticut, 231.3, and New York, 191.2. The others States possessing more than 100 to the mile are: Penn'a, 171; Maryland, 130.3; Ohio, 117; Delaware, 113, and Illinois, 100.7.

Wyoming, boasting 1 1/2 persons to the mile, more than doubles Nevada, while Arizona with 1.8 stands third from the bottom. Montana, New Mexico, Idaho, Utah, Oregon, South Dakota, Colorado and North Dakota all have fewer persons than 10 to the mile.

Of the States of large population, Washington takes the lead in the growth of density, having advanced from 7.8 to 17.1 per square mile in the past 10 years, thus taking a place between Kansas with 20.7 and Nebraska with 15.5. Washington exceeds her neighbor, Oregon, with seven persons to the mile by more than 10 and even surpasses California with 15.2. Idaho increased from 1.9 to 3.9 and Oklahoma from 1.4 to 23.9.

The figures for other States are: Indiana, 75.3; Kentucky, 57.9; Tennessee, 52.4; Virginia, 51.2; West Virginia, 50.8; South Carolina, 49.7; Michigan, 48.9; Missouri, 47.9; New Hampshire, 47.7; North Carolina, 45.3; Georgia, 44.4; Wisconsin, 42.2; Alabama, 41.7; Iowa, 40; Vermont, 39; Mississippi, 38.8; Louisiana, 36.5; Arkansas, 30; Minnesota, 25.7; Maine, 24.8; Texas, 14.8; Florida, 13.7.



STEEL FENCE POSTS

are to be driven. Cost one-half the price of wood posts. Will last a life time. Plain, barbed or woven wire of any kind can be used. Over one million posts in use. Recommendations from 150 steady users. Large illustrated catalog sent free; contains much valuable information about fence construction, posts and their use. Of the one million posts in use, I never knew a man to return to wood posts after using the steel posts. The posts are reinforced at the ground line with a vitrified clay collar which protects the post and gives it an excellent surface bearing where it is needed. One man used 10,000 posts. By driving the posts it saves the labor of digging post holes. They are fire-proof and everlasting in every respect. The greatest farm fence post on earth. Our customers say so and they know, for they have used them. Write today for free catalog.

J. H. DOWNS

30 Cortland St.,

New York City.

THE GOLDEN STREAM.

A very commendable little booklet of 68 pages, called "The Golden Stream," has been recently issued by the International Harvester company of America.

This booklet covers a multitude of vital facts relative to the plain, ordinary, everyday cow in a very interesting manner. Such up-to-date topics as "The Dual Purpose Cow," "Bovine Tuberculosis," "How to Make a Babcock Test," "Rations for Dairy Cows," "The Feeding Value of Silage," and "Advantages of Dairy Farming," etc., are discussed. In general, the purpose of the book is to impress the farmers with the proper relation of the cow to our modern civilization as the source of a golden stream of wealth.

Numerous illustrations throughout the booklet showing record-making cows and herds of various milking breeds, silos, dairy barns and interiors, etc., greatly enhance the value of the booklet. It will be greatly appreciated, especially by farmers and dairymen. A copy of the booklet may be obtained by writing the company of any one of the various I. H. C. branch houses.

CORNSTALK PAPER REPORTED TO BE A REALITY NOW.

Statement Is Made That Experiments of the Agricultural Department Have Been Successful.

The day of paper made from cornstalks has come, the experiments of the Department of Agriculture having proved the process can be made a commercial proposition. For some time these experiments have been under way, says the Progress Magazine, and now the department is utilizing some of the cornstalk paper for its correspondence, and operates a mill which turns out the new paper, of a high grade, by the hundred pound lot. The experts of Uncle Sam say that a small commercial mill can be kept busy through the entire year by the stalks from the corn fields within a radius of eight to ten miles.

Perhaps it will not be many years before the farmer will look upon his stalks as the most valuable part of his corn crop. If he can realize but half a cent a pound he will get more for them than for his corn at 60 cents a bushel. The problem of making cheaper paper to compete with the wood pulp article used for printing newspapers has not been solved yet, though the investigators are hopeful. What this will mean can readily be realized when it is stated that about 35,000,000 worth of raw material, wood pulp, is used annually in the paper making business in this country. That means a great many trees cut down. The stalks are pressed until the juice, a very rich stock food, is extracted, then shredded and dried. In this form they will keep sweet a year, insuring a steady operation of the paper mill. Only two-thirds of the fibre is utilized for print paper, the remainder making a sort of parchment, water-tight for a while, but not absorbing the ink.

BLOODED STOCK for February.

WHO IS A CHRISTIAN?

By Ella Wheeler Wilcox.

Who is a Christian in this Christian land
Of many churches and of lofty spires?
Not he who sits in soft upholstered pews
Bought by the profits of unholy greed,
And looks devotion, while he thinks of gain.
Not he who sends petitions from the lips
That lie to-morrow in the street and mart.
Not he who fattens on another's toil,
And flings his unearned riches to the poor,
Or aids the heathen with a lessened wage,
And builds cathedrals with an increased rent.

Christ, with Thy great, sweet, simple creed of love,
How must Thou weary of Earth's "Christian" clans,
Who preach salvation through Thy saving blood
While planning slaughter of their fellow men.

Who is a Christian? It is one whose life
Is built on love, on kindness and on faith;
Who holds his brother as his other self;
Who toils for justice, equity and Peace,
And hides no aim or purpose in his heart
That will not chord with universal good.

Though he be pagan, heretic or Jew,
That man is Christian and beloved of Christ.

INFLUENCE OF SOILS UPON WOOL.

Farmers used to hoot at the idea that soils had any noticeable effect upon wool—but it now is very generally recognized that they do, and one who says his soil is not good for wool growing is no longer laughed at. Sheep lie upon the ground a great deal; the air in summer is constantly full of particles of dust, and there is no reason why if the soil contains chemicals detrimental to wool, the fleece may not be affected by it. An alkaline soil particularly has a harmful effect upon wool. A neutral or acid soil such as clay or sand is best for wool production. The reason why alkali is detrimental is that when it comes in contact with the oil it saponifies it.

Every one is familiar with this principle, it being exemplified in the production of soft soap by the combination of lye and grease. When the oil saponifies, it no longer keeps the scales soft. They stand out in all directions and rub each other. Such harsh, dry fleeces never command a good price on the market, for they cannot be used in the production of fine woolsens. It is not at all uncommon to find a fleece that is good on the back, but harsh and unpliant on the sides, and, underneath, showing very clearly that contact with the soil has detrimentally affected it.

BLOODED STOCK for February.

PROFITABLE BROOD SOWS.

In the first place, it would be needless to say that good sows and a large, strong boar should be used. If pigs are well grown, they are all right to be bred at eight months, and, what is of more importance, they should be bred at this age in order that they make good, steady breeders. These early breeders will always be good for two litters a year, producing fair-sized litters of pigs, which are generally uniform in size. Some breeders are not content with seven or eight pigs to the litter, but breed for more. I do not believe it wise to do so, for the more pigs per litter the smaller they are, and they are not uniform, so unless given a great deal of attention results are not so good as with smaller, but more vigorous and uniform, pigs.

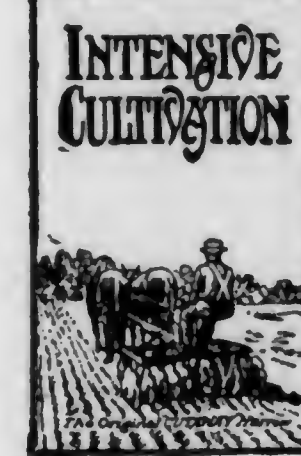
Sows that are very thin in flesh, or, on the other hand, fat, will not bring large litters, but, just the same, it is better to have the sow a little thin than fat when bred. If just a little thin, she may be considered in good breeding condition, for generally in this condition the sow will bring forth a fair litter of the largest and strongest pigs. We often hear breeders of pure breeds complain of non-breeders. It is caused mainly by being compelled to keep their stock in a nice appearing form, which is generally too fat to insure getting a pig. The sows are not sterile—only the reproductive organs are too fat, making conception difficult, if not entirely impossible. After sows are safe in pig they can be fattened somewhat, always keeping them healthy and in good form.

Breeders do not generally breed right after the sow is fed, but rather some time after being fed. Nor should they be bred on the first signs of heat. It is better to wait an entire day before coupling. Most breeders take the sow to the boar's pen, and but one service is allowed. If sows are young and small, it might be well to get a breeding crate, there being several good ones on the market.

During pregnancy the sow should

THE NEW FARMER

The "rube" has been succeeded by the "agriculturist." There's as much difference between the "rube" and "agriculturist" as between corn and cucumbers. The modern farmer is a business man, a student, and a progressionist. The result is a great change in cultural methods.



Mould-board plows and drag cultivators are being replaced by "Cutaway" tools. Farmers now realize that cultivation is not merely a matter of softening the ground. Thorough, frequent cultivation stirs the soil, lets in

air and sunshine and new life, killing foul vegetation. "Cutaway" tools effect perfect sub-soil connections; save time and labor; increase crops 25% to 50%.

Send postal to-day to The Cutaway Harrow Co., Higganum, Conn., for new booklet "INTENSIVE CULTIVATION." It's free. Ad

always be kept up in flesh, for it is impossible to put on flesh while suckling her litter, thus getting her in too thin flesh if she is to raise two litters a year, and that is just what she ought to do. On the other hand, should the sow be too fat at the time of farrowing there will be difficulty in farrowing and often results in a loss of pigs and sometimes in the sow herself.

Whether the sow is to farrow in spring or fall, she can have pasture a good share of the time, and in order to get best results in raising pigs good big pastures are indispensable. We will consider the different forage plants and hog pastures mixtures. Now for all around pasturage, there can be nothing better than red clover. Wherever this plant can be grown it gives the best results as a pig pasture. If the land is naturally low and wet, alsike and timothy or Bermuda grass will do probably better than red clover. Northern breeders are probably somewhat handicapped when it comes to variety; for more southerly States can grow a larger number of grasses and legumes which do not succeed well in the North. Among these are soy beans, cowpeas, velvet beans and blue grass. All of these are splendid forage plants for pigs, and while blue grass will hold out the entire year, it would be better to plant a variety, not only getting more and better feed, but also the results in the growing pigs will be more satisfactory. In Northern States there is probably nothing better (after clover is closely cropped in fall) than rape and Canadian field peas. These two plants may be sown in the corn before last cultivation. And for winter pastures we can plant wheat or rye. While rye is not equal in richness to blue grass or almost any of the other grasses, yet it certainly is better than no grass at all, and gives a larger and quicker growth in the spring than any other grass. Some people object to rye grass on the ground that stock eat too much of it and are apt to get sick. I have not found it so, for I think stock generally do not like it very well. I have tried artichokes and found them a good feed. Another food which most farmers are apt to neglect is the pumpkin. It is not only a valuable food when fed with grain and grass, but it also is a corrective, being especially good for worms. Pumpkins should not be taken to the cellar to be stored in winter. They should either be piled in the field and covered with corn, or they can be taken near the barn and covered in the same way, taking care that the piles are not too large.

If the pregnant sows have had good pasture and have been fed some grain, very little, if any, trouble will be had at farrowing time. Knowing the date a sow will farrow, the breeder should for a few days feed some bran or shorts and oats or oil meal, so that the bowels will be in a rather loose condition. Though a bed of bright straw is a necessity in the farrowing pen, there is such a thing as getting too much straw in it, being a death trap for weak pigs.

There will be all the milk at hand that is needed for a week or so, but after the sows should be fed more and better feed as the drain becomes greater. As milk foods, roots of all kinds are good—turnips, mangels, carrots and potatoes. As a grain feed nothing excels oats.

—Colman's Rural World.

SIX MONEY-MAKING SYSTEMS FREE.

With each advertising course we give, absolutely free, the full and complete plan of six successful Mail-Order plans, with any one of which you can make big money.

Do you know how many "schemes" are being operated to-day on a Mail-Order basis? You perhaps would be surprised at the large number. We do not mean "fake" schemes, but schemes that are perfectly legitimate. At least one-half of all the advertisements in Mail-Order papers are of the "scheme" nature. You may not recognize the "scheme" part but it is there just the same. If you doubt this assertion, carefully read over the ads. in any Mail Order paper and you will be convinced that the above statement is correct—that one-half of all the legitimate Mail-Order enterprises now being operated and making money are of the "scheme" nature.

Grit, energy, and a good scheme makes a combination that can't be beat. And a Mail-Order scheme is the biggest winner of them all. With one of the plans we outline there is one concern that uses—on this one plan alone—1,000 Ingersoll watches each week. Just figure out their profit! With another one of them there is one concern that made \$100,000 last year. We will say further that no plan is outlined that is paying others less than \$10,000 a year each.

As already stated, we intend to give, absolutely free, with each advertising course (and no one else can get them under any circumstances) the complete plan and details of six successful money-making Mail-Order systems.

YET IN ITS INFANCY.

The mail order trade is in its infancy, just as electricity was twenty-five years ago. Its scope is as extensive as that of commerce itself, and great fortunes await those who are shrewd enough to take advantage of the opportunities afforded. When one member of a family goes into the mail trade, he or she can secure the assistance of other members of the family in spare time, thereby making a great saving in clerical and other expenses. Many a profitable mail business is conducted in a home by members of a family.

ALL BEGAN IN A SMALL WAY.

It is a remarkable fact that all the great Mail-Order successes have had their beginning upon small capital; in fact, small capital at start seems to be a requisite.

A young lady in New Carlisle, Ind., a small town, was a stenographer in a law office up until three years ago. She embarked in the Mail-Order business, and now has eighteen persons in her employ. Her profits now amount to over \$300 per week.

There's a young lady in Boston, not more than 23 years of age, who now conducts a monthly home publication which is paying her \$12,000 annually, who got her funds from advertising and selling sachet powder through the Mail-Order trade.

QUESTIONS ASKED AND ANSWERED.

Do I need a license? Not required in any State, city or town.
Will \$10.00 start me? Yes, in a small way.

(Continued on page 18)

What do you recommend? ANYTHING may be sold through judicious advertising. My 6 (six) free plans tell you what you are most likely to make big money on, and they can be worked in city, village or country equally well, and they will start you on the right road to a fortune. I mean this.

Do I have to give all my time at first? Absolutely No. You can attend to your mail and orders in the evening and at your own home. Only a small room required. If you have a position you can keep it until your business becomes so large that it is absolutely necessary to quit your position, and not before.

Do you furnish six plans free and tell me what is best to advertise and sell? Yes, certainly, as I have stated before, and any one of which should net you \$20.00 to \$40.00 weekly, in clean cash, in a small way. Then you can build up your business by reinvesting profits in advertising, to thousands of dollars income every year.

Can your plan be used without advertising so as to make me money? Yes, in a small way, either in city, village or country one could make \$20.00 to \$40.00 per week with any one of the plans I furnish you.

A Complete Mail-Order Instruction Course, telling you exactly how to start and conduct a Mail-Order business, no matter where located. Above are extracts from Mail-Order Book.

This Course has been sold for \$10.00 but we will give it to you, charges prepaid, for twelve yearly subscribers to **Blooded Stock** at 25 Cents each. If interested send us the twelve subscribers' names and \$3.00, and we will send you Course of Instruction by return mail. Address.

MAIL-ORDER EDITOR,
BLOODED STOCK,
Oxford, Pa.

Mail-Order Book, sample copies and Blanks free.

HOG CHOLERA.

Much is being said, just now, about hog cholera.

Cholera has perhaps been more prevalent among hogs this fall and winter and has been very destructive

BACTEROL THE ONLY ANIMAL WASH AND DISINFECTANT CONFORMING TO BULLETIN #100 OF THE U.S. DEPARTMENT OF AGRICULTURE. BRUNO GROSCHKE & CO. 79 JONES LANE N.Y. CITY.



The GUERNSEY COW
Her Dairy Products have Scored the Highest Quality and Best Color
Full information of this fine breed of GUERNSEY CLUB, Box Y, Peterboro, N. H.

GIVE AWAY YOUR COWS--if they wont breed.

Abortion and Sterility are the Bane of the Farmer's Life

STERILOID

Positively Prevents Abortion! Positively Prevents Barrenness and Sterility.

Steriloid heals, cleanses, strengthens the reproductive organs, allays irritation, and destroys the germs of Abortion. Ordinarily cows get with calf after one treatment. Steriloid prevents disease and keeps cows regular breeders. It is not an experiment; when used according to the simple directions it has never been known to fail.

SPECIAL NOTICE—To meet the competition of imitators and the number of worthless preparations which, inspired by the success of STERILOID have recently placed upon the market, the price of STERILOID has been reduced. Until further notice, from \$2 to \$1.

Guarantee—If STERILOID does not do all that we claim for it, we will refund the purchase price.

MARTIN REMEDY CO., E 398-408 COLUMBUS AVE., NEW YORK
Reference: Colonial National Bank, New York.

CLARK'S
CUTAWAY
TOOLS

FOR ORCHARD AND FARM

All genuine "Cutaways" are intense cultivators and will increase your crops 25 to 50 per cent. Our Double Action "Cutaway" Harrow is a wonderful invention can be used in field or orchard. Perfect center draft. Drawn by two medium horses will move the earth twice on every trip. We can prove it. "Intensive Cultivation," our new catalogue is free. Send for it today.

CUTAWAY HARROW CO., 806 Main St., Hingham, Conn.



to the hog industry of the great middle West.

Symptoms.

All cases of hog cholera do not show the typical symptoms. Generally two, or possibly three, hogs appear dumpish; the eyes watery; later the lids may become adherent. There may be a slight discharge from the nostrils. In the course of a week or ten days these hogs go off their feed and are attacked by diarrhoea.

The discharges from the bowels vary in color from black to grayish, are watery and of a very offensive odor. They now appear tucked up in the flanks and possibly thumping may be noted. They rapidly become thin in flesh and finally too weak to move about, crawl under some straw and die. In a few days others become sick; those that were first attacked now begin to die, and in the course of three or four weeks, most of the herd may have succumbed to the malady unless remedial agents are administered and the ravages of the disease are checked. Pneumonia may accompany the disease, and when it is present, there may be noted accelerated respiration and a short hacking cough.

Autopsy.

There may be noted red or purple patches, particularly along the belly or flanks; this is particularly noticed in white skinned hogs. The ears may become inflamed and appear red and swollen. When the hog is opened, small hemorrhages may be observed on the serous membranes or linings of the thorax and abdominal cavity. Very small hemorrhages may be noted in the kidneys. The lymph glands (kernels) may show hemorrhage in them. When the bones are cut open, the softer, spongy parts may appear reddish black, due to hemorrhages. If the stomach and intestines be opened, areas in the stomach will be noted bright red. This is an area of inflammation, but may not always be present. The inflammation may affect only a part of the stomach. This inflammation may extend into the intestines. If the colon or large intestines be opened, there

may be found ulcers varying in diameter up to one-half inch. These usually appear button like and are hence sometimes called button ulcers.

Treatment.

Intestinal antiseptics such as sulphocarbolates compound have been given in the feed, or water or slop. This no doubt aids in warding off the cholera, but our experience shows that this kind of treatment has no curative properties.

The serum treatment is the only scientific cure for hog cholera. Many state experiment stations are preparing this serum. Some of the biological houses have also taken up the preparation of the serum, but the demand has been so heavy this year that many herds have suffered the usual loss when attacked by this disease. The serum could not be obtained.

The future should see an enlargement of these plants and others established at experiment stations, as the serum road is the only one to the conservation of the pork industry.
B. F. KAUPP.
Colorado Agricultural College, Fort Collins.

Inside Information About Tanning Hides for Coats and Robes.

Your Cow, Steer and Horse hides when converted into fur robes and rugs are far better and cheaper than anything you can buy. There is no humbug about such goods. You know what they are when you furnish the material from which they are made. See the advertisement of the Crosby Frisian Fur Company, of Rochester, N. Y., in another column. These people—who are pioneers in this kind of work—are doing a large and ever increasing business in custom tanning, due to the fact that they not only understand their business, but treat their patrons right. See their advertisement in another column and if interested get their illustrated catalog.

TO OLD SUBSCRIBERS PARTICULARLY

The Watches are as described and guaranteed to us by the **Knickerbocker Watch Co.** Your dealer would charge you \$9.00 to \$12.00 for these same Watches. We guarantee the movement as described and warranted for one year. **Your money back if not satisfied, upon return of the Watch.** We have other premiums if desired. We want your help and assistance and will pay you well either in cash or premiums. Yours very truly,

BLOODED STOCK, Oxford, Pa.



No. 606. Attractive engraved open face watch for ladies, 6x8 size. Case has jointed back, gold filled stock, warranted to wear 10 years. Movement is high grade Century of Seth Thomas manufacture, or N. Y. Standard movements, 7 jewel straight line lever.

Given for 14 subscribers at 50c.



No. 605. Same movement in 10 year gold filled, engine turn design case.

No. 676. Lady's attractive hunting watch, 6 size gold filled case, warranted to wear 10 years. Handsome engraved design. Movement is high grade Century of Seth Thomas manufacture, or N. Y. Standard movements, 7 jewel lever escapement, superior timepiece, fully guaranteed.

No. 675. Same watch as above described but in engine turn design case.

No. 205. Gentleman's 12 size, open face watch, thin model, popular engine turned pattern, screw case, gold filled, warranted to wear 10 years. American 7 jewel straight line lever movement, damasked plates. White enamel dial with second hand.

No. 206. Same watch as above described in engraved design case.

Given for 14 subscribers at 50c.



No. 604. Same movement in 10 year gold filled, plain polished design case.

Given for 14 subscribers at 50c.



No. 1152-36. Same watch as above described with gold finished Sun Burst dial.

No. 1152. Same movement as above described in 10 year gold filled, engine turn design case, white enamel dial.

Given for 12 subscribers at 50c.



No. 1150. New thin model, 12 size, popular price watch, genuine American watch movement, jeweled escapement, finely damasked plates, fitted with white enamel dial. Case is gold filled, guaranteed to wear 10 years. This is positively not only the latest but the best watch value ever offered.

Given for 12 subscribers at 50c.



No. 276. Gentleman's hunting watch in thin model, 12 size gold filled case, warranted to wear 10 years, handsome assorted engraved designs. American 7 jewel straight line lever movement, damasked plates.

No. 275. Same movement as above described in engine turn design case.

Given for 14 subscribers at 50c.



No. 1152-36. Same watch as above in engine turn case with gold finished Sun Burst dial.

Given for 12 subscribers at 50c.

WRITE FOR SAMPLE PAPERS AND BLANKS



Model VI
As Illustrated
\$1850

PRACTICAL ECONOMY

"Practical Economy" as Applied to Automobiles Should Mean Nothing Less Than the Term Implies.

In this day and age of marvelous mechanical development it is not a difficult matter to build an Automobile that is practical,—a car that will run and give reasonably good service.

But to build an Automobile that is both "PRACTICAL" and "ECONOMICAL" is quite a different proposition.

To accomplish this very-much-to-be-desired result it is not only necessary to use the very best material obtainable and have the work done by first class mechanics, but the use of the many parts entering into its constructions must be combined in such an orderly and systematic manner as to practically eliminate loss or waste.

The first cost of an Automobile is not always the greatest cost. "There's a reason!" Think it over "Mr. Man" before you purchase a car and not afterwards when it's too late.

The Automobile buyer of today demands, and rightly, dollar for dollar return on his investment. The 1911 "Enger" and the basic manufacturing principle in back of it constitute an automobile "economy" heretofore unattainable. It is because, all the complicating parts, cost raising, non-essentials are eliminated.

"ENGER" Cars are intensely "PRACTICAL" and show remarkable "ECONOMY" in maintenance cost.



Model IV \$1875

Eight other
Models
Catalog mailed
on request.



Model V \$1800

BRANCHES.	New York.....	2120 Broadway.
	Chicago	2337 Michigan Bvd.
	Philadelphia	632 N. Broad St.
	Boston	7 Water St.
	Los Angeles	520 Broadway, Central Bldg.

THE ENGER MOTOR CAR COMPANY, Cincinnati, Ohio.

**End of
Volume**



TITLE CONTINUED
ON NEXT REEL

END OF REEL
PLEASE
REWIND